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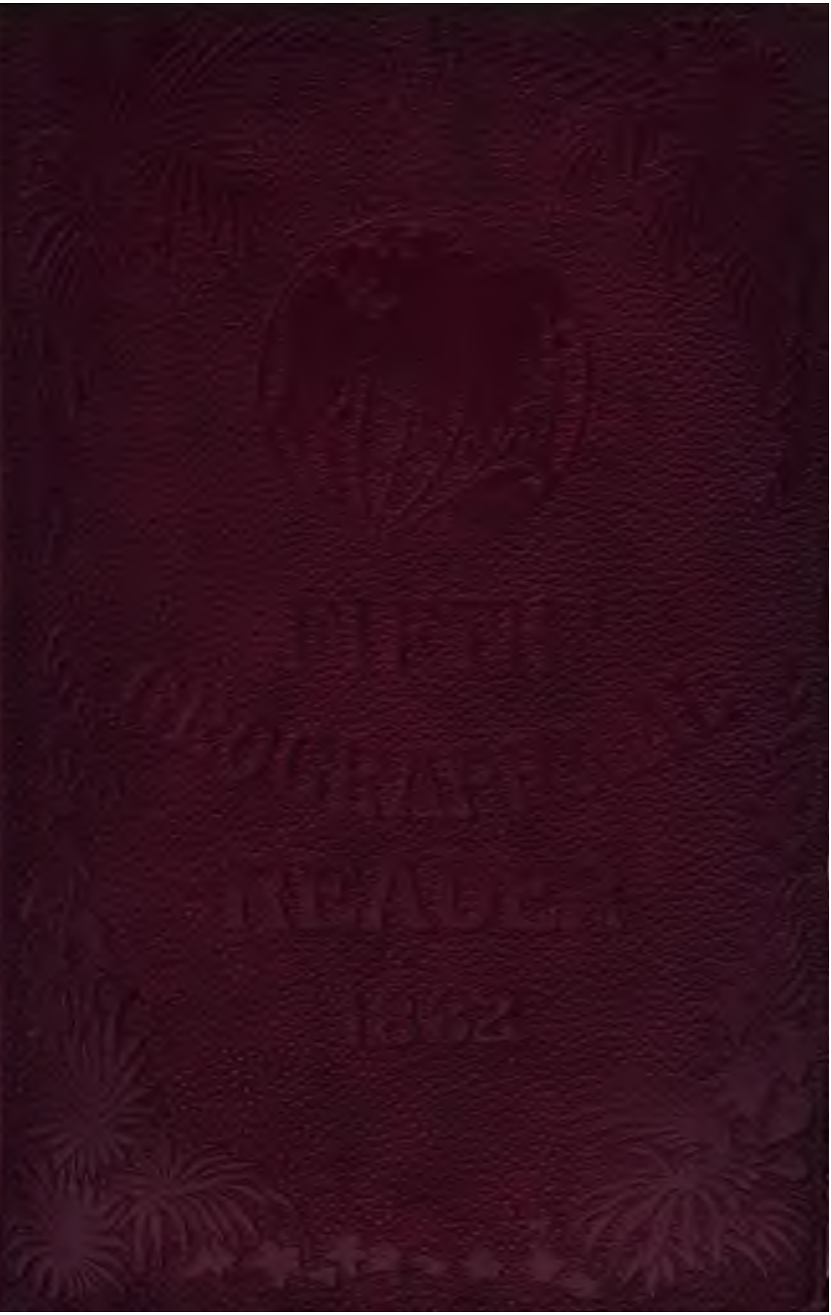

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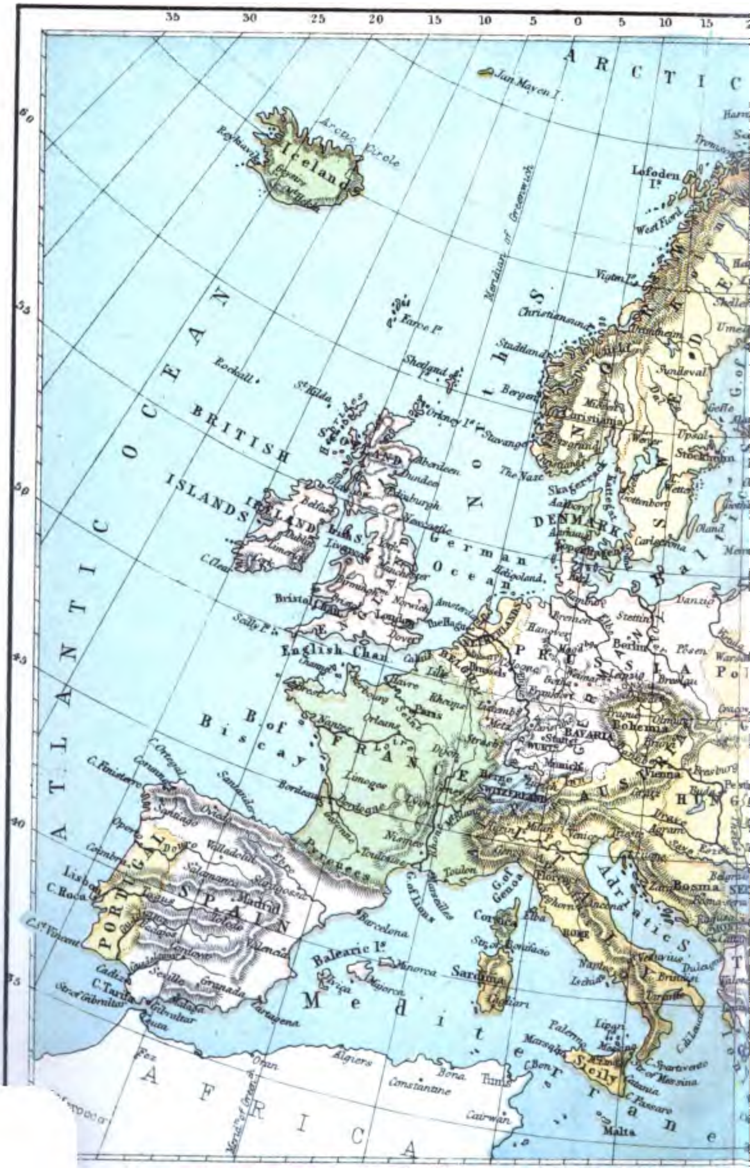
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Christiania
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Stockholm
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Wetter
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Pyrenees
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Stuttgart
Munich
Prague
Bohemia
Olmutz
Brunn
Vienna
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Buda
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Taranto
Vesuvius
ITALY
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Bosnia
Dulcigno
G. of Genoa
G. of Lions
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Elba
Sardinia
Cagliari
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Marsala
Messina
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Malta
C. Ortegal
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Valladolid
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Toledo
Tagus
Guadiana
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C. Roca
C. St Vincent
PORTUGAL
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Seville
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Cadiz
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C. Tarifa
Str. of Gibraltar
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Ceuta
Balearic Is
Minorca
Majorca
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Fez
Oran
Algiers
Bona
Constantine
Tunis
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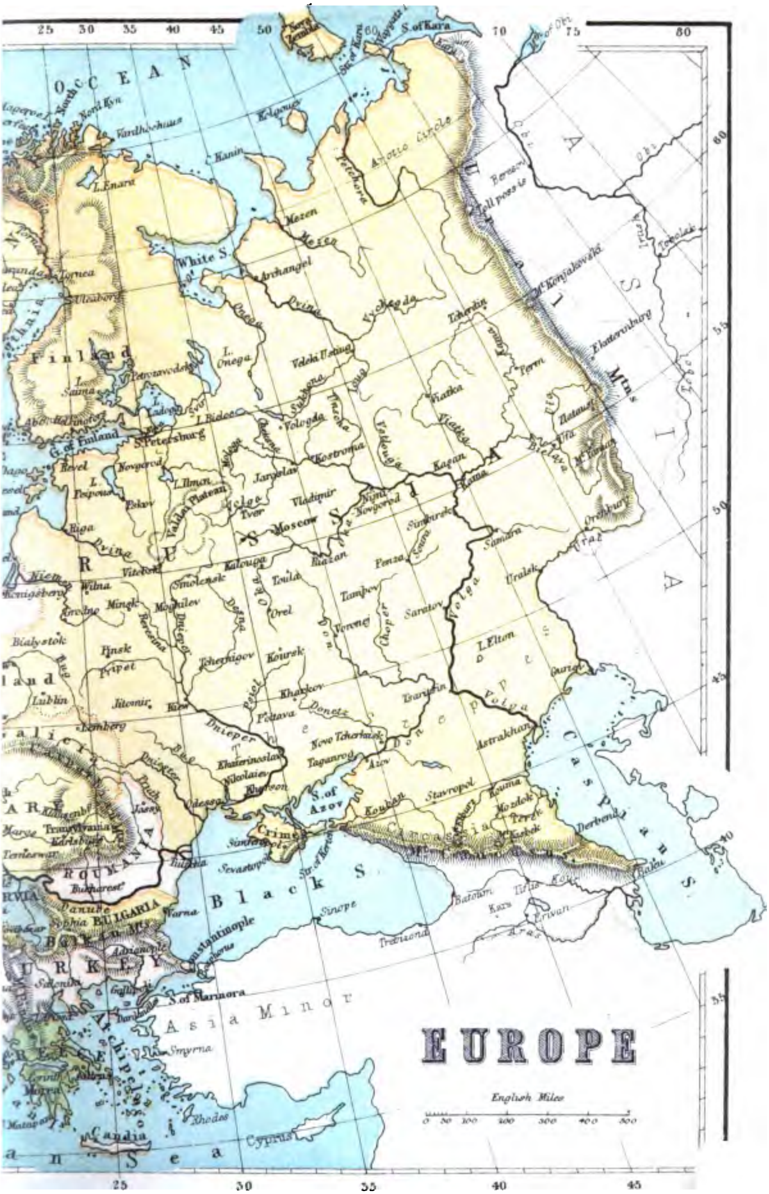
Meridian of Greenwich


EUROPE
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Ekaterinburg
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Kama
Kostroma
Jaroslav
Vladimir
Nijni Novgorod
Simbirsk
Samara
Penza
Saratov
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Orel
Oka
Voronej
Don
Choper
Niemen
Wilna
Konigsberg
Minsk
Grodno
Mohilev
Berezina
Dnieper
Bialystok
Pinsk
Pripet
Bug
Tchernigov
Koursk
Kharkov
Poltava
Donetz
Tsaritsin
L. Elton
Gouriev
Astrakhan
Steppes
Lublin
Jitomir
Kiev
Lemberg
Galicia
Dniester
Pruth
Ekaterinoslav
Nikolaiev
Kherson
Odessa
Novo Tcherkask
Taganrog
Azov
S. of Azov
Kouban
Stavropol
Kouma
Mozdok
Terek
Mt. Kasbek
Caucasus
Mt. Elbrus
Derbend
Baku
Caspian S.
Crimea
Simferopol
Sevastopol
Str. of Kertch
Black S.
Sinope
Trebizond
Batoum
Tiflis
Kour
Kars
Erivan
Aras
Jassy
Transylvania
Karlsburg
Roumania
Bucharest
Danube
Bulgaria
Varna
Sophia
Balkan Mts
Ismail
Adrianople
Constantinople
Bosphorus
Turkey
Salonika
Gallipoli
Dardanelles
S. of Marmora
Asia Minor
Smyrna
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Corinth
Morea
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Rhodes
Candia
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EUROPE.

LESSON I.

EUROPE.—INTRODUCTORY.

EUROPE is the smallest of the great continental divisions of the world. It forms the north-western portion of the vast tract of continuous land stretching across the Eastern Hemisphere. This Eastern Hemisphere is sometimes called the Old World, from its being the scene of all the events of history previous to the discovery of America by Columbus, in 1492. Europe is divided from the New World by the broad Atlantic, which the ancients used to think no one could cross. The progress of civilisation has been in the main from the east towards the west. As we proceed with these lessons, it will be seen that the form of Europe is such as to be favourable to the arts of navigation. But great and wealthy empires had existed for many ages on the shores of this continent, before sailors were found daring enough to pass over the ocean. Then civilisation continued its march westward again, and the people of Europe founded great and famous states in the New World of America.

Geographically, Europe lies between the meridians of 10° west, and 66° east longitude, and the parallels of 35° and 72°, north latitude. Its area is rather under 4,000,000 square miles, or less than a quarter of the area of Asia. The longest line that can be drawn across Europe lies between Cape St. Vincent and a point in the Ural Mountains—a distance of 3,400 miles. A line, nearly at right angles to the former—from Cape Nordkyn, in Norway, to Cape Matapan, in Greece, 2,400 miles long—gives the greatest breadth. Europe is bounded by the sea on the north, west, and south : Mount Caucasus is the south-eastern boundary, and on the eastern side the waters of the Caspian, the river Ural, the Uralian range of mountains, and the river Kara, are taken by common consent as the division between Europe and Asia.

The population of Europe approaches 300,000,000, giving an average of 75 inhabitants to the square mile. The people of this continent belong generally to the Indo-European, or Aryan race, sometimes called Caucasian. There are, however, some important exceptions, such as the Basques of Spain and south-western France, and the Lapps of Lapland, who are the remnants of more ancient inhabitants; also the Turks and Hungarians, who are later invaders from Asia, besides some barbarous tribes in Russia.

The people of Europe are, beyond doubt, in advance of those of every other part of the world, except the United States of America and our own colonies, where the people are, of course, of

European descent. Many causes have helped to give Europeans this foremost place in the world. Industry and commerce, in the earliest ages, found their homes in the great emporiums of the east, Nineveh and Babylon, and other now extinct centres of enterprise. The wave of progress was always westward, and round the Mediterranean arose the flourishing states of Phœnicia, Egypt, Greece, Carthage, and Rome. Their position on the borders of an inland sea led them to carry their goods by water instead of by land ; and they became skilful sailors. This increased their trade so much that in their turn each of these states grew very rich. Distant countries which had anything to sell were sure to find the best market on the shores of the Mediterranean, and finally in Rome. Thus the wealth of India was brought into Europe, partly by the Red Sea and partly overland.

In very much later times this commerce with the East enriched the Republics of Venice, Genoa, and Pisa. While the road to India was directly eastward, the western shores of Europe could not compete with states more conveniently placed. When Vasco de Gama, however, opened up a new path to India by the Cape of Good Hope, and almost at the same time Columbus "gave to Castile and Aragon another world," the trading states of the Mediterranean could not hold their ground, and commerce was attracted to new centres in the west and north.

The natural advantages of Europe now told in favour of the western nations. Their seaboard, indented so deeply with inlets and inland seas that no part of Europe is more than 400 miles from the ocean, placed them in ready communication with every part of the world. Europe has nearly 20,000 miles of coast-line, or one mile of coast to every 170 miles of area, while Asia has only one to 530, Africa one to 680, North America one to 260, and South America one to 420. The mildness of the climate and the fertility of the soil, the abundance of mineral wealth, particularly of coal and iron, and

RIALTO BRIDGE, VENICE.

the energy, skill, and enterprise of the inhabitants, especially when favoured by good government, caused agriculture, manufactures, commerce, the ordinary arts of life, science, literature, and civilisation, to advance with rapid strides.

In the fifteenth century, Spain and Portugal were the wealthiest countries of the world. Charles V. said in his pride, "When Spain is angry the whole world trembles." The people became enriched with the gold from the East and West Indies, and from Central and South America; but at the same time they became indolent, and lost their energy for commercial enterprise, and so gradually, notwithstanding their fine climate, abundant mineral wealth, and great commercial advantages, lost their position as "Great Powers."

The Dutch next took the foremost place in commerce and wealth, which they held for a long period. England, however, gradually wrested it from them, until now she not only stands foremost among the countries of the world as a trading nation, but has planted her sons over distant continents, to add to the well-being and happiness of the human race.

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me-rid′-i-an
bar′-bar-ous
co′-lo-nies
long′-i-tude
wealth′-i-est
flour′-ish-ing
poss-ess′-ed
ven′-tur-ed
cent′-u-ry
lit′-er-a-ture
con-ven′-i-ent
ad-van′-tag-es
in′-ter-course
com-mer′-ci-al
civ-il-is-a′-tion

Em-po'-ri-um,	a place to which goods are brought from various places for sale; a centre of commerce or trade.
Ex-tinct',	ended, closed, put out.
En'-ter-prise,	an adventure, an undertaking requiring energy and skill.
Rem'-nants,	parts left, what remains after a part has been removed.
In'-dol-ent,	idle, inactive, not fond of labour.
"Great Powers,"	a term used of certain chief nations claiming a right to be consulted on any treaty affecting the general interests of Europe.

The area of Europe is a little under 4,000,000 *square miles, and its population nearly* 300,000,000.

Its greatest length from Cape St. Vincent to the Ural Mountains is 3,400 *miles, and its greatest breadth* 2,400 *miles.*

Europe has about 20,000 *miles of coast-line, or one mile to every* 170 *miles of area, whilst North America has one to* 260; *South America one to* 420; *Asia one to* 530, *and Africa one to* 680.

LESSON II.

EUROPE.—MOUNTAIN SYSTEMS.

EUROPE is not a single country, but is made up of many countries. In the extreme north there are two countries, the one Norway and the other Sweden—together called Scandinavia. Along the western side of the mainland of Europe there are the countries of Denmark, Germany, Holland, Belgium, France, Portugal, and Spain. Towards the south and south-east there are Switzerland, Italy, Austria, Greece, and Turkey; and on the east Russia. The habits and occupations of the people, as well as the climate in each of these divisions, are largely affected by the mountain systems.

Between Norway and Sweden there is a range of mountains stretching a length of about 900 miles. On the north-eastern side of Europe there is a chain of mountains called the Urals (or Ourals) which run from the Arctic Ocean in a direct line southward for more than 1,000 miles to the Caspian Sea, dividing Europe from Asia. There are various islands lying off the shores, each having more or less a mountainous character; and ranges and groups abound in different parts of the great continent; but, roughly, we may say that the mainland has two great systems—the northern and the southern—with a vast central plain between them.

The *northern*, or Scandinavian branch, is not a single ridge, but a series of broad and barren ridges—barren, except for their wild forests in which bears, wolves, and foxes abound. The countries between which these ranges pass—Norway and Sweden—are very different in character. The former is a narrow strip of land, with rugged and broken edges, along the coast bordering the Atlantic; and the latter, a much flatter country, has a mountain ridge next to Norway, whilst the Baltic Sea and the Gulf of Bothnia bound it on its eastern side. The Scandinavian system stretching from the Naze to the North Cape has, in its chief division called the Dovrefjeld,* heights exceeding 8,000 feet.

A much more extensive mountain system is the *southern* one, the western end of which is in

---

* The *j* is pronounced like *y*—*Dovrefyeld.*

Portugal, bordered by the Atlantic, and the eastern on the edge of the Caspian Sea. Its length is about 3,500 miles, and it spreads out in width at one part nearly 1,000 miles.

This great southern system extends through Portugal, Spain, France, Switzerland, Italy, Germany, Austria, Turkey, and Greece; and in most instances a mountain range is the dividing line between any one country and its neighbour. On the northern slope of the system the mountains incline gradually until they merge into plains; but the southern side, facing the Mediterranean Sea, is steeper and more rugged. The mountain system forms a barrier which has a marked effect on the climate of southern as compared with northern Europe, apart from the difference of latitude. Bathed by the waters of the Mediterranean, and glowing with the light and heat of a sub-tropical sun, the south is the region of wine, of luscious fruits—where "the olive bursts with floods of oil"—of rice, evergreens, and the lily tribe. As we travel northward to a land of sombre skies, the vine ceases to flourish; and we find pasture and farm land, where cattle thrive better than in the south, where butter and corn are the staple products; and at last, in the far north, forests of timber alone abound.

The highest mountain group of Europe is the one called the Alps, the great mass of which lies about midway between the north pole and the equator. This great chain is between 600 and 700 miles long. It stretches from the Mediterranean for a short distance northward, then passes eastward in the form of a crescent, and is continued by the Carpathian Mountains, which connect the Alps with the Balkans of Turkey. This range divides France, Switzerland, and Germany on the north, from Italy, Austria, and other countries on the south, and has a number of branches in various parts which have local names—the Swiss Alps, the Maritime Alps, the Noric Alps, the Graian Alps, etc. The loftier peaks, which are from 10,000 to 15,000 feet high, are snow-capped, and the upper valleys are filled with ice.

There are passes over some of these Alps at a great height above the level of the sea. The most southern of these passes—the Col-de-Tende, in the Maritime Alps—was practicable only for mules, until Napoleon I. made it a carriage road over which to convey his troops. This division is terminated by Monte Viso, at a height of 12,586 feet. Across the Cottian Alps Napoleon also constructed a road 6,119 feet above the sea-level, and across the Graian Alps another one 6,772 feet above the sea, over the Col (or neck) of Mont Cenis. A tunnel, seven miles long, has been bored through Mont Cenis to connect Italy with France, and a railway constructed through the tunnel. On one pass of the Pennine Alps in Switzerland there is a monastery, built by Bernard de Menthon about 900 years ago, at a height of 8,590 feet above the sea, near the line of perpetual snow. This is the highest

THE ALPS, SWITZERLAND.

habitation in Europe. Its inmates are monks, who devote a great part of their lives to the humane work of assisting and saving travellers lost in the mountains. The dogs of St. Bernard have a world-wide fame for their sagacity in assisting the monks in tracking out those who have been so unfortunate as to sink exhausted among the snows of these Alpine heights.

Local groups of mountains exist apart from the main ranges. Every country in the south has a branch or system of mountains peculiar to itself. Spain has the Sierra Nevada and Sierra Morena, the mountains of Toledo and the Cantabrian mountains. The latter are a westward extension of the lofty chain called the Pyrenees, which forms the barrier between France and Spain. From the term *Sierra*, meaning a "saw," we know that the peaks of these ranges stand up in jagged points like the teeth on the edge of a saw.

France has its ranges, including the Cevennes and the Auvergne; Austria has a number of mountains within her dominions; and Italy has the long range of the Apennines—a southern offshoot from the Alps. Germany has but few mountains as compared with her more southern neighbours, for that country lies principally in the central plain of Europe. The Erzgebirge* (metal mountains), between Saxony and Bohemia, and the Riesengebirge (giant mountains), between Prussia and Bohemia, have no peak higher than 5,000 feet; and the Black Forest Mountains—mountains

---

* Pronounce, *Erts-gebeerge.*

THE MATTERHORN IN THE PENNINE ALPS.

covered with wood—have very few peaks exceeding 4,000 feet.

Volcanoes occur in the southern branch of the great Alpine system. Etna, in Sicily, an island south of Italy, is the highest volcano (nearly 11,000 feet). Vesuvius, a volcanic peak in the Apennines overlooking the Bay of Naples, is celebrated for its great eruptions, during some of which whole towns and villages have been buried.

---

af-fect'-ed
char'-ac-ter
dif'-fer-ent
si-er'-ra
lus'-ci-ous
trav'-el-lers
e-rup-tions
vol-can'-oes
prac'-tic-a-ble
mon'-as-ter-y
per-pet'-u-al
ex-haust'-ed

Europe has two great mountain systems: the Northern or Scandinavian, and the Southern or Alpine, with its connecting branches.

The Alps are in Switzerland, Italy, France, and Austria. The Pyrenees divide Spain from France. The Apennines run through Italy. The Carpathians are in Austria, and the Balkans in Turkey, whilst the Caucasus Mountains divide Europe from Asia on the south-east, and the Ural Mountains on the east.

Etna in Sicily, and Vesuvius in the Apennines, are the chief volcanoes.

LESSON III.

EUROPE.—PLAINS AND VALLEYS.

Of the plains of Europe, the principal one is the great *Central Plain*, extending from Holland to the Urals, and occupying about two-thirds of Europe. It may be said to include a great part of England and Sweden, for the shallow depressions of the North Sea and the Baltic do not affect the

A VALLEY IN THE ALPS

glens in Scotland attract tourists from all parts of the world, their beauty being heightened by the frequency of mountain lakes, locked in the long and narrow basins, for which these valleys are noted. The valleys of Norway possess similar features, as also many of the Alpine valleys.

Of the *deltas* formed near the mouths of rivers, the largest in Europe is that of the Rhine, which constitutes a third part of Holland, and covers an area of 4,000 square miles. The delta of the Rhone is also very considerable. The peculiar features of deltas are, that they are low-lying and constantly enlarging. Their formation is due to the mud and sand brought down by the streams and deposited near the river mouths. Other level coast-lands are formed by the silt and sand carried by the sea into sheltered bays and nooks. This silt in the course of ages becomes alluvial land, capable of high cultivation.

Table-lands or *plateaux* are elevated plains, of which the principal European examples are found in Switzerland, Bohemia, and Castile. The peaks of the Swiss Alps rise 4,000 feet out of the table-land of Switzerland. Spain is remarkable for a series of terraced table-lands, which ascend step by step from the south to the Pyrenees, and are bounded in succession by the lofty serrated ridges of parallel mountain chains.

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prin'-cip-al
as-cend'-ing
scarc'-i-ty
ter'-rac-ed
scen'-e-ry
des'-ti-tute
sol'-i-tude
par'-al-lel
mer'-chand-ise
pe-cu'-li-ar
fre'-quen-cy
height'-en-ed

"Al-lu′-vi-al land," deposits of mud, sand, gravel, and other matter brought down by rivers or floods.

Ser-rat′-ed, notched on the edge like a saw.

Silt, earthy matter finely powdered and held in suspension by water till it drops to the bottom.

The principal plain of Europe is the Great Central Plain. This includes the Germanic Plain embracing Germany and the Netherlands, and the Sarmatian or Great Plain of Russia.

The smaller plains are those of France and Ireland.

The chief table-lands are those of Switzerland, Bohemia, and Castile.

LESSON IV.

EUROPE.—RIVER SYSTEMS.

Europe has a coast-line which fringes the whole of the north and the west, and nearly all the south borders ; but on the east the continent is joined to Asia, along which there are neither seas nor lakes except at the south-eastern point, where the Caspian Sea receives all the rivers of Eastern Europe.

Along the northern part, the Arctic Ocean (with the White Sea in the form of a large gulf) receives into its icy bosom the waters of a vast network of streams, which traverse the north-east of Europe, that is, North Russia. The principal river in this district is the Petchora, which rises in the Ural Mountains, and has a winding course of 900 miles, emptying its waters by a large number of mouths on the low shores of the barren coast. The Mezen, the Dwina, and the Onega, all draw waters from the northern part of the same plain, and discharge themselves into the White Sea. These rivers of the north are slow in their current, as they flow through an almost level plain.

The Great Central Plain is plentifully watered by streams, nearly all of which run towards the south, showing that the land slopes from the centre in that direction. All these empty their waters into the great salt inland seas, the Caspian and the Black Seas. Into the Caspian flows the largest and finest stream of Europe, the Volga, which forms the great Russian commercial highway. This river has an exceedingly gradual slope, and its course is therefore very sluggish. It finds its way into the Caspian Sea by about seventy mouths. A host of smaller streams unite to make up the rivers Don and Dnieper, which run also southward, but empty themselves into the Black Sea. Thus we see that nearly the whole of the great plain has a little rising ground across the northern part of its centre; that it slopes towards the Arctic Ocean northward, and towards the Black Sea southward, and so throws off all its waters in those two directions.

The watershed of the Great Plain runs in a general south-west direction from where the sixtieth parallel of latitude crosses the Ural Mountains. This watershed is continued in the same general direction through Germany, France, and Spain, to the extreme south-west of the conti-

LAKE GENEVA AND THE ALPS.

nent; and, with few exceptions, the rivers run south-east and north-west from this irregular central line.

The Alpine Mountains, and the great range and spurs running from them, form the vast water slopes of Central Europe. From the slopes of these gigantic heights, from their snow-capped summits, and from their ice-clad valleys, streams innumerable tumble and rush and glide through gorges and ravines, and smiling valleys, finally to unite together in the lower valleys and plains, and flow as noble rivers to the sea.

Eastward, to the Black Sea, the Danube carries the surplus waters from the mountains in Austria. The Po drains the southern slopes of the Swiss Alps into the Adriatic Sea; the rapid Rhone issues from "Geneva's blue lake" on the eastern side, and, uniting with the Saône, flows through France into the Gulf of Lyons. The Ebro runs eastward from the Cantabrian Mountains into the Mediterranean. Northwards from the central ridge the Western Dwina, the Vistula, and the Oder pour their waters into the Baltic Sea. The Elbe and the beautiful Rhine flow from the Alps through the Germanic Plain into the North Sea. Of the western rivers of France, the Seine empties its waters into the English Channel, and the Loire and Garonne into the Bay of Biscay. The Douro, Tagus, and Guadiana of Spain and Portugal enter the Atlantic Ocean.

A separate river system is found in the long peninsula of Norway and Sweden, at the north-west of Europe. Nearly the whole length of that peninsula, as shown in the lesson on mountains, has a high chain of land at a short distance from the Atlantic. The narrow strip, on the side nearest to the ocean, is the country of Norway, and the broader band on the eastern side between the mountain range and the Baltic Sea is the country of Sweden. The eastern mountain slopes being more extensive and less steep, Sweden has longer and less rapid rivers than Norway. They run eastward and discharge themselves into the Gulf of Bothnia, and into the Baltic.

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six′-ti-eth
di-rec′-tion
beau′-ti-ful
ir-reg′-u-lar
gi-gant′-ic
is′-sues
se′-par-ate
pen-in′-su-la
in-num′-er-a-ble

The chief European rivers of the south-east watershed are: the **Volga,** *flowing into the Caspian Sea; the* **Don** *into the Sea of Azof; the* **Dnieper** *and* **Danube** *into the Black Sea; and the* **Po, Rhone,** *and* **Ebro** *into the Mediterranean Sea.*

The chief rivers of the north-west watershed are: the **Guadiana, Tagus,** *and* **Douro** *(all rivers of the Iberian peninsula), flowing into the Atlantic Ocean; the* **Garonne** *and* **Loire** *into the Bay of Biscay; the* **Seine** *into the English Channel; the* **Rhine** *and* **Elbe** *into the German Ocean; and the* **Oder, Vistula, Niemen,** *and the western* **Dwina,** *into the Baltic Sea.*

LESSON V.

EUROPE.—COAST-LINE (I.).

If we draw a line from the mouth of the Danube to the mouth of the Oder in the Baltic, and another at right angles to it from the head of the Adriatic Sea to the Ural Mountains, and make these lines the lesser and greater diameters of an oval, this would be the largest regular figure that could be drawn on the map of Europe without taking in the sea. All the land outside this curved figure consists of peninsulas and coast-line, and much exceeds in area the land enclosed within. In this respect Europe differs greatly from Africa and Australia, nearly the whole of which could be enclosed in such a curve; and in a less degree it differs even from Asia and America. This is what is meant by saying that Europe has more coast-line for its size than any other division of the globe. The sea indents the land on every side except that adjoining Asia, and even here the Caspian forms a large part of its border.

The commercial advantage which this gives to Europe cannot be overrated. It saves the cost and difficulty of carrying goods by land, and renders interchange easy by giving to nearly every part of the Continent a ready access to foreign markets. The Arctic Ocean penetrates deeply into Russia on the north under the name of the White Sea, and extends the coast-line of the empire, bringing prosperity to Archangel at the mouth of the Dwina, the first Russian town that traded with England. The Atlantic has the wide branches of the North Sea, the English Channel, and the Bay of Biscay, while the land-locked seas of the Baltic and Mediterranean have bays, gulfs, estuaries, and minor seas of their own. Havens and river mouths, where ships may ride in safety, are naturally chosen as trading ports; and these abound all round the coast. If from the Sea of Kara, the limit of Europe in the Arctic Ocean, we trace the sea borders along the Atlantic shores and into the Mediterranean as far as the Black Sea and Mount Caucasus, we meet everywhere with numerous openings into the land and projections into the sea. Scandinavia, Denmark, Spain and Portugal, Italy, and Greece are all peninsulas.

Nowhere do we find a length of straight coast like that which closes in nearly the whole of Africa from intercourse with the rest of the world. The shores of the Arctic Ocean are very broken, but not so much so as the coast of Norway. The latter consists of hundreds of *fiords*, or firths, bounded by steep cliffs, down which countless mountain torrents pour, and of an archipelago of thousands of islands. Most of these isles are mere rocks, resorted to only by fowlers who rob the sea-birds' nests of their eider down, and by fishers in the proper season for the cod and other fish abounding in the seas around. The southern cape of Norway is the Naze (or nose), near which is the funnel-shaped opening between Norway and Sweden, the highway to the Baltic. This is named on the west the Skager-rack, and on the east the Cattegat. It has its continuation in the Sound, the clearest passage into the Baltic. The coast of Sweden, extending to the north of the Gulf of Bothnia, the deepest part of the Baltic, is low-lying, shelving down from the Swedish plain with many small islands for its bulwarks in parts, and river mouths which feed the inland sea. The eastern shore of the Baltic partakes of the same character, but with the deep opening of the Gulf of Finland reaching to St. Petersburg, also the Gulf of Riga and the Gulf of Dantzic. Turning to the north, the coast compasses nearly the whole of Denmark, a peninsula remarkable in the direction it takes and in its character of alluvial land.

The large opening in the coast of Holland named the Zuyder Zee, or South Sea, to distinguish it from the North Sea of which it is a branch, was formed by an irruption of waters over the low banks of the country. The mouths of the Rhine cut a large district into islands. Skirting the north coast of France, the same system of inlets and promontories prevails till we reach the Atlantic Ocean, the most projecting point passed being Cape La Hogue. The Bay of Biscay, the finest bay in Europe, is formed partly by the coast of France, consisting in a great measure of low marshes and sand dunes, and partly by the high cliffs of northern Spain on the south. Cape Ortegal and Cape Finisterre are bold projections at the south-west point of the great bay. Rounding Cape Rocca, we reach the mouth of the Tagus, upon which Lisbon, the capital of Portugal, stands, and Cape St. Vincent, noteworthy in English history. The sea off this cape was the scene of the earliest of the naval victories of Nelson, then an officer under Sir John Jervis.

The Mediterranean coast-line is equally broken. In the western division of the sea the coast extends from Cape Tarifa, at the Straits of Gibraltar, to Cape Spartivento, the most southerly point of Italy, and contains the two principal bays or gulfs, those of Lyons and Genoa. In the eastern division its irregularity is extreme, forming the Gulf of Taranto in South Italy, the Adriatic Sea with the Gulf of Venice between Italy and Austria, and the Gulf of Corinth, which nearly severs the peninsula of the Morea from the mainland. Cape Santa Maria di Leuca, in Italy, and Cape Matapan, in Greece, are the chief among innumerable capes.

The Black Sea is connected with the Mediterranean by the Bosphorus, the Sea of Marmora, and the Dardanelles. North of the Black Sea is the peninsula of the Crimea, famous in recent English history.

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di-ă'-me-ter
pen'-e-trates
na'-tur-al-ly
fŏ'-reign
vic'-tor-ies
ear'-li-est
com'-pass-es
ir-rup'-tion
pro'-mon-to-ries

Es'-tu-a-ry, the mouth of a river as far as the tide penetrates. Sometimes an arm of the sea is called an estuary.

"Shelving down," sloping down, like steps, one below the other.

Fi-ord', the Norse word for firth.

Sev'-er, to cut off.

Europe has more coast-line for its size than any other great division of the globe. The commercial advantages arising from this fact are "it saves the cost and difficulty of carrying goods *by land, and renders interchange easy by giving to nearly every part of the Continent a ready access to foreign markets.*"

Scandinavia, Denmark, Spain *and* **Portugal, Italy,** *and* **Greece** *are the great peninsulas of Europe.*

The chief seas and bays on the coast are:—The **Baltic Sea, North Sea, Bay of Biscay**; *the* **Black Sea, Sea of Marmora,** *and* **Mediterranean Sea**; *the Gulfs of Lyons and Genoa, and also the Adriatic Sea form parts of the Mediterranean.*

*The chief capes are:—***North Cape** *and* **Naze** *in Norway; the* **Skawe** *in Denmark;* **Ortegal, Finisterre, Rocca, St. Vincent,** *and* **Tarifa** *in the Iberian peninsula;* **Spartivento** *in Italy; and* **Matapan** *in Greece.*

LESSON VI.

EUROPE.—COAST-LINE (II.).

ALTHOUGH Russia has, in all, a good length of coast-line, very little of it is of service for commerce. The Arctic Ocean is frozen over during the greater part of the year, so that the port of Archangel cannot be reached by ships. The Baltic is closed by ice during several months of the winter; and even in summer, the chief port, that of Riga, is difficult to reach, owing to the shoals of sand in the gulf of the same name. The Black Sea, again, is so far inland as to be out of the general course of trade, and possesses only one important Russian port, that of Odessa, at the mouth of the Dniester. The Caspian Sea, being quite land-locked, cannot be classed amongst the commercial waters of Europe. Hence, without an acquisition of more convenient coast-line, the commerce of Russia can never become very extensive.

Norway and Sweden, on the other hand, are open to the sea in every part except the isthmus which joins the peninsula to Russia. The coast of Sweden suffers from the disadvantage of the Baltic winter; but Stockholm, the capital, built on islands, and Gothenburg, are thriving ports. The west coast of Norway facing the Atlantic is open all the year round. This is due partly to the Gulf Stream, whose waters have not lost the whole of their warmth after crossing the Atlantic, and partly to the mild south-westerly winds which prevail. The advantage of open water is increased by the nature of the coast, pierced and broken by deep fiords (some of them stretching one or two hundred miles into the land), and skirted by innumerable rocky islands and islets. Not far from the coast there runs a chain of banks, partly of sand, and partly of rocks and stones. These form the great fishing grounds of the hardy Norwegians. Christiania at the south-east, and Bergen on the west coast, are the two most flourishing ports.

Denmark, including its islands, has a very extensive coast-line. But much of it, on the west, is below the level of the sea, and is protected by dykes, as in Holland. Other parts form natural embankments of low-lying sand hills or dunes, matted together by the growth of the sand reed, an effectual guard against the encroachment of the sea.

Copenhagen—the name meaning a port or haven for trading—is the capital, and the only large town. It is situated on the island of Zealand, facing the Sound.

Germany is deficient in coast-line, though, since the union of Hanover with the empire, an outlet for trade has been gained in Hamburg, at the mouth of the Elbe, one of the greatest, if not the first of the continental ports. Dantzic, the Prussian port of the Baltic, is of less importance. The coast towards the Baltic is low, with outlying shoals. Towards the North Sea the German coast partakes of the character of that of Denmark, with sand dunes and dykes. The town of Bremen, on the river Weser, has considerable commerce.

The Netherlands have a coast-line of 160 miles, low in every part, and saved from inundation only by natural and artificial mounds. Amsterdam and Rotterdam, though less flourishing than formerly, are still great commercial ports. The ports of Belgium are Antwerp and Ostend. Bruges also, though an inland town, is made into a port by means of a canal opening into the sea at Ostend.

France benefits by a coast-line both on the Atlantic and Mediterranean. The former is bold and rocky in the north-west; but as it approaches Spain it descends to marshy flats and lines of sand dunes. On the Mediterranean the coast is less broken. France possesses many good harbours; Havre, Nantes, and Bordeaux, at the openings of the rivers Seine, Loire, and Garonne; also Marseilles, on the Gulf of Lyons, a port of embarcation for India and the East.

The Spanish peninsula is without a rival in the world in its position for commerce, but the coast is less broken than that of the other maritime countries of Europe, and for its extent it has but few good harbours. Oporto, at the mouth of the Douro, and Lisbon, the capital of Portugal, at the mouth of the Tagus, are the only Portuguese ports. Cadiz and Barcelona are the chief Spanish ports. Barcelona at one time held a foremost place amongst the European ports.

The coast of Italy is of great length, but without many inlets. Its position in the middle of the Mediterranean gave the country a great advantage when the commerce of the world was more confined; and Genoa, Florence, Pisa, and Venice—States of merchant princes—were the wealthiest in the world.

Still more ancient was the commercial fame of Greece, a country consisting of peninsulas and islands, and therefore of extensive coasts. From the renowned ports of Athens and Corinth the fleets of antiquity started to found cities and trading stations and colonies round the borders of the Great Sea. Coasting along Turkey through the Sea of Marmora, we reach Constantinople, the ancient Byzantium, whose splendid position between Europe and Asia made it a centre of commerce, both overland and maritime, from a very early period.

ac-qui-si′-tion
flour′-ish-ing
mar′-i-time
ef-fect′-u-al
en-croach′-ment
an-ti′-qui-ty
de-fic′-i-ent
ar-ti-fic′-i-al
em-bar-ca′-tion

The ports of Russia on the Arctic Ocean and Baltic Sea are closed to commerce for many months during the winter. The coast of Norway is excessively broken, and fronted by innumerable rocky islands and islets.

Much of the surface of Denmark and the Netherlands is lower than the sea-level, and is protected by natural or artificial embankments.

France and Spain have coast-lines on both the Atlantic and Mediterranean.

The chief ports of Europe are **London** *and* **Liverpool** *in England;* **Glasgow** *in Scotland;* **Hamburg** *in Germany;* **Amsterdam** *in Holland;* **Marseilles** *and* **Bordeaux** *in France;* **Stockholm** *in Sweden;* **Antwerp** *in Belgium;* **Barcelona** *in Spain; and* **Odessa** *in Russia (on the Black Sea).*

LESSON VII.

EUROPE.—CLIMATE.

EUROPE lies in the temperate zone; but many causes interfere to modify the climate, making it different from what we should naturally expect, judging only by distance from the equator. Land absorbs heat more readily than water does, and parts with it more easily. In the long days and short nights of summer, the vast plains of Russia store up more heat during the day than they lose in the night, and the summers, though short, are intensely hot. In the short days and long nights of winter, more heat is parted with than received, and the cold becomes extreme.

Such a climate, with hot summers and cold winters, is called continental, to distinguish it from the insular or maritime climate of countries surrounded by or exposed to the sea.

Water both absorbs and parts with heat slowly. Temperature, therefore, in the neighbourhood of the ocean is more equable, that is, it is cooler in summer and warmer in winter than in corresponding continental climates.

The winds also affect climate. The winds that prevail in Europe are those from the south-west, with the opposite or counter currents from the north-east. The former are mild and full of moisture, coming as they do in the track of the warm Gulf Stream, and they shed upon the western lands copious rain. The latter winds are dry, coming over the vast Russian plains, and are warm or piercingly cold according to the season; in spring chilled by the Arctic winter and frozen plains which they traverse, and in autumn warmed by the heated surface of the same wide tracts. The south winds affect the countries of the Mediterranean, bringing hot blasts from Africa—the Sirocco of Italy and the Solano of Spain—which, though tempered by the sea, are still at times suffocating and almost unbearable.

Elevation is another element affecting climate. Other conditions being the same, the higher the land the colder the climate, until on mountain heights the line of perpetual snow is reached. Even a slight difference makes its effect seen in the vegetation. Mountains also check the winds and change their direction, and the cold surface of the heights converts into rain the vapours suspended in the air. The rain fills the rivers, and so returns to the sea, while the winds, disburdened of moisture, pursue their course as dry currents of air.

Bearing these facts in mind, we may account for the general climate of Europe, and for its variations in different places. As affected by latitude, Europe possesses three zones of climate. A southern or warm zone lies between the thirty-fifth and forty-fifth degrees of latitude, and includes the south of France, with the other countries bathed by the Mediterranean. Here there is scarcely any winter. A temperate or middle zone extends 10° further north, taking in Germany, the greater part of France, and the whole of Belgium, Holland, England, and Ireland. The remaining regions of Europe, extending to latitude 65°, form a northern zone, where the rigours of winter increase and the summers are of short duration. Beyond this in the extreme north, including a portion of Norway, Russia, Swedish Lapland, and the Russian regions abutting on the Arctic Sea, the sun scarcely sets during the three months of summer; and the long nights of winter are illumined by the Aurora Borealis or Northern Lights. The cold is also so intense that mercury freezes and iron blisters the skin.

All the western part of Europe lies within the influence of the warm moist winds from the Atlantic Ocean, and some portions have their climates further modified by the warm Gulf Stream. Hence the British Isles and Norway, and to a lesser extent the western shores of France and Spain, have not only a moister, but also a more equable climate than the countries further to the east in the same latitude. To take one example, Moscow and Edinburgh are in about the same latitude, yet Moscow has as many months as Edinburgh has weeks of frost. On the other hand, the short summer of Moscow is much hotter than that of Edinburgh. The climate of Norway, except in the far north, is also for the same reason remarkably mild for its latitude.

The countries round the Mediterranean are warmer than latitude would lead us to expect, and this from two causes—the hot winds from Africa of which we have spoken, and the high chains of mountains along the north, forming a protection from the cold north and north-east winds.

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tem'-per-a-ture
pierc'-ing-ly
il-lum'-in-ed
re-ceiv'-ed
cur'-rents
mer'-cu-ry
af-fect'-ing
dif'-fer-ence
a-but'-ting

The climate of the western countries and islands of Europe is much influenced by the Gulf Stream, and by the warm and moist south-west winds from the Atlantic, which prevail during a great part of the year.

The climate of the countries on the Mediterranean is affected by the warm winds which blow from Africa, and by the protection afforded from the cold north winds by the great southern range of mountains. The inland countries have short hot summers, and long and severe winters.

FRANCE.

LESSON VIII.

FRANCE.—PHYSICAL FEATURES.

Whoever approaches France from the English Channel for the first time is struck with the rather dreary aspect of the northern part of the coast, and, except in some select spots, this feeling is not lessened by pushing into the interior for a distance of some hundreds of miles. Along the northern shores, stretching from the port of Dunkirk (that is, *Dune Church,* so named from a church being erected on the dunes, or sand hills), the ground is nearly level with the sea, in many places marshy, forming an uninteresting fringe of sand.

On the north-west coast there are two large districts called Normandy and Brittany. The former is so named from its having been invaded by people from the north of Europe termed Northmen, or Normans; and the latter from the Bretons, a race of people who have inhabited it from very early times, and who were akin to the Britons of our own land. When the Saxons came into Britain it is said that many of the ancient inhabitants escaped across the sea and took refuge with their brethren there. There are some hills and low mountain ranges in these two districts —Normandy and Brittany—but towards the south-east the surface becomes a vast plain of pasture land, heath, and forest.

Stretching southward along the shores of the Bay of Biscay, the ground is fringed with low sand hills, from which the grey sand used to be blown for a vast distance inland, until the people planted pines, brooms, and various shrubs of quick growth and suitable for poor soil. The roots of these trees and shrubs bind the sand together, and keep it from blowing away. Towards the south-west shores there is a belt of flat land stretching nearly 70 miles in length, and of about the same breadth, reaching to the foot of the Pyrenees, which divide France from Spain. This great belt of ground is known as the Landes, a name meaning in French a sandy and marshy plain. Except where the spurs of the Pyrenees push into this broad area the surface is a loose ashy sand, overgrown here and there with heath, furze, and pine woods. So poor is the soil that flocks of wretched half-starved sheep wander over the desert waste scarcely able to find food for their support, and so marshy is it that the shepherds have to walk about on high stilts in order to pass dry footed from place to place. Clothed in sheep-skins and perched on high, these shepherds, while watching their sheep, spend much of their time in knitting worsted stockings for sale.

While, however, the northern and western coasts are chiefly low and flat, the eastern and southern boundaries are to a great extent flanked by mountain heights, some of great beauty in summer, and all of imposing appearance. The Pyrenees stretch from the west coast, on the border of the Bay of Biscay, along the whole frontier of Spain and southern France. That portion nearest to the bay is known as the Basses (or Low) Pyrenees, the middle portion as the Hautes (or High) Pyrenees, and the part near to the Mediterranean as the Oriental (or Eastern) Pyrenees. Within a short distance north of the Gulf of Lyons and stretching in a north-east direction, there is a long range of well-wooded mountains called the Cevennes.

On the eastern frontiers, from the English Channel, along the edge of Belgium and of a part of Germany, the surface is low and largely covered with wood. Adjoining Baden, a grand range of mountains called the Vosges stretches for a long distance, and is then joined by the splendid sweep of heights called the Jura Mountains, 180 miles in length, and from 30 to 50 miles in width. A great part of this range forms a barrier between France and Switzerland. Forward to the very south-eastern point of the country, to the shores of the Mediterranean, the Alps stretch and spread under different local names—the Pennines, the Savoy Alps, the Hautes (or High) Alps, the Basses (or Low) Alps, and the Maritime Alps, the name

IN THE SAVOY ALPS.

of the latter (Maritime) reminding us of their approach to the sea.

Besides the mountain ranges mentioned, there are other but less important ranges of hills in the interior, one of which, the Auvergne, consists for the most part of extinct volcanoes. This bleak and desolate volcanic region is amongst the most striking natural features of France. It is a district of 50 miles by 20, filled with naked cones and dome-shaped mountains, without a blade of grass, but furrowed with winding streams of lava, and strewn with deep beds of volcanic ash. Many of the summits are yawning craters, dry or filled with water fed from springs within, and giving evidence of eruption long before the dawn of history. Of these extinct volcanoes the principal is the Puy de Dôme.

On the whole, however, France must be considered a level country. To the English tourist, used to the garden-like aspect which the hedges and verdure give to his own country with its wide parks and ornamental plantations, the greater part of France presents a tame aspect both from its flat character and its minute division among small owners, whose thoughts are too intent on securing a livelihood to leave any time for landscape gardening.

Wide provinces such as Champagne, Picardy, and Poitou are uninteresting levels. Nevertheless some other parts are of great beauty. The undulations and pastures of Normandy bear a striking resemblance to pastoral England, and the tranquil Seine flows through pleasant landscapes. The river borders are often picturesque, especially the western reaches of the Loire, while the Rhone, encompassed with mountains, is cheerful, gloomy, bold, or wild, varying in every mile of its course.

While hedgerows are uncommon, natural forests cover an eighth of the country, chiefly in the east and north-east, having in a great measure been cleared from the western plains and the seats of active industry. The department of the Ardennes, on the borders of Belgium, is nearly all forest land, and so is the mountain boundary between France and Switzerland. Forests still remain in detached parts in central and western France. Large forests exist at Fontainebleau and Orleans, and several in Normandy, while more or less woodland is retained in almost every department. A special Government Board regulates the forests, about one-seventh being national property, whence a revenue of a million sterling for cuttings is annually derived.

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knit'-ting
wors'-ted
yawn'-ing
ap-pear'-ance
vol-can'-oes
se-cur'-ing
front'-iers
dĕ'-sol-ate
re-sem'-blance

On the whole France is a level country. The undulating pastoral districts of Normandy and Brittany are similar to southern England. The chief mountains of France are, the **Pyrenees** *dividing France from Spain; the* **Cevennes** *running in a north-east direction almost from the Pyrenees; the* **Vosges**, *the forest-clad* **Juras**, *and the rugged* **Alps** *on the* *east, and the volcanic* **Auvergne Mountains** *almost in the centre of the country.*

In the south-west, and reaching to the coast, is a vast sandy and marshy plain called the Landes.

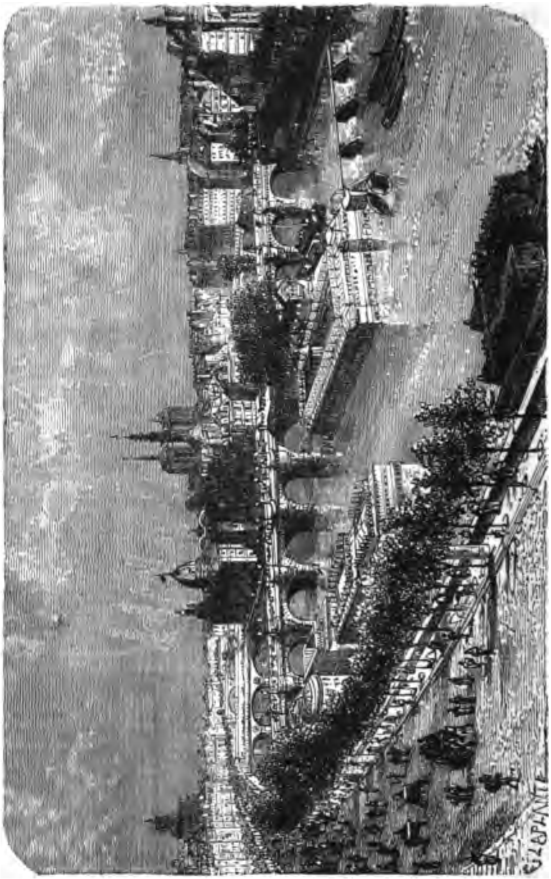
LESSON IX.

FRANCE.—CLIMATE AND RESOURCES.

BEAUTIFUL France, as the French delight to call it, gains their attachment as much from its serene skies and salubrious climate as from its diversified and fertile soil. A country of mountain and plain and sea, placed in the middle of the temperate zone, must present varieties of climate, even if extremes be unknown. There is a sensible difference between north and south, perceptible both in the mean temperature and in the vegetable productions, a difference greater than that between north and south Britain, where the surrounding sea tends to equalise the variations. There is a difference also between east and west, equal to 2° of latitude; the mountains and forests of the inland boundary making it colder, while the seaboard gets the full benefit of the moist winds warmed by the Great Gulf Stream. These winds prevail over Brittany and its vicinity, which correspond in climate with our genial though humid counties of Cornwall and Devon. Indeed, the resemblance in climate of the northern provinces of France to the southern counties of England is striking. A line from Nantes on the Loire to Mezières in the Ardennes, in the north-east, marks the southern boundary of a botanical zone, whose rainfall and pasture, cattle and dairies, and grain, fruits, and timber, renew the picture of rural England.

The middle zone, ranging south, to a line between Bordeaux (south-west) and Besançon (east), in the department of the Doubs, is the pleasantest in France. Here the climate is warm and dry, the harvest sets in eight or ten days earlier than further north, maize flourishes, and the vine reaches perfection. The southern zone extends to the Mediterranean, and is often oppressively hot and dry, making a mid-day rest for the outdoor labourer a necessity, and requiring careful irrigation. Great heats occur from July to September, when noxious insects, creeping and flying, become a perfect pest. The south suffers frequently from a want of rain in spring, and is exposed in winter to a piercing icy wind called the *Bise,* which sometimes ruins the olives. The ill-advised clearance of the forests, by the removal of a natural protection, has laid wide spaces open to those dreaded winds, and thereby modified the local climate adversely. In the middle zone, on the other hand, the harvest runs risks from occasional heavy storms of hail and rain, which sweep across in narrow lines. The general climate of these zones is, of course, modified by local circumstances, such as the presence of mountains, woods, and marshes. The Pyrenees near the sea, though in the extreme south, afford delightful resorts for health and relaxation. Montpelier, an eminence overlooking the Gulf of Lyons, is the pleasure city of the south. Avignon, on the Rhone, and Cannes and Nice on the Mediterranean, are the favoured resorts of many English families. London and Paris enjoy about the same mean yearly temperature, but the daily weather is more variable in London, whilst the extremes of heat and cold are less than in Paris.

The pleasant climate which favours the French affects their manners and customs. An English visitor for the first time stepping on shore at the quaint old towns of Calais, Dieppe, or Havre, or extending his tour through the pastoral land of Normandy, seems to have reached another world. The bewildering clatter of tongues and wooden clogs in the markets; the peasant women, with snowy caps in lieu of bonnets, and jewels, the family heirlooms, in their ears; the gables of the ancient buildings, and the ill-paved streets, many still only lit with oil, or not lighted at all, remind him of the Middle Ages. Life is passed, when labour is over, in the open air. Home comforts in the English sense are not much sought for. Carpets are rarely fitted to the rooms, loose rugs being used, or the boards simply polished, even in the best houses. *Fêtes*, or holiday festivals, are frequent in the villages, when the villagers in their best clothes pour forth to dance and sing, countenanced by their *maires* or chief magistrates, and their *curés* or priests. Paris and other large cities possess *Boulevards* (formerly ramparts or fortifi-



PARIS ON THE SEINE.

cations, but now wide streets lined with trees), with many refreshment houses, in front of which chairs and marble tables are placed, where the citizens breakfast and dine.

Except the barren heaths and sandy marshes of the south-west, there are few parts of France which are not fertile, while some parts are of the richest fertility. With so varied a surface and so genial a climate, the resources of the vegetable kingdom are too abundant to be named. Fully one-half of the country is arable land; pastures constitute about a tenth, and vineyards one twenty-sixth, the rest consisting of forest, waste, roads, and towns. Much of the soil, once unproductive, has by knowledge, skill, and enterprise, been made to add to the store of national wealth, and to supply valued comforts and necessaries of life to every part of the world. Thus the vine succeeds in light and sandy soil where grain would not flourish, and enriches whole provinces which would otherwise be poor; while elsewhere wheat gives an abundant return, and the vine is profitless.

Of the produce of the soil, wheat stands first in value, yet the keen personal interest of several millions of small proprietors in its cultivation does not bring such good results at harvest as does the larger capital invested in English farms. France is, however, pre-eminently the wine-producing country of the world, each grape district being famous for its own special growth, while that of Champagne stands before all the rest. Claret is the universal French beverage.

On account of the shelter afforded by the extensive forests, France has more wild animals than England has. The wild boar and the wolf, long since exterminated in our country, are still found in the French woods. Game animals are scarce, and small birds also are rare, being destroyed by farmers in the belief that they damage the crops. This practice has resulted in the increase of insects to such an extent as to bring about more harm to the farm produce than would have been done by the birds. Domestic animals—poultry, pigs, &c.—are reared in great numbers, but they are not brought to such perfection as in England. Eggs are exported by many millions every week; they are collected on the farms, sold to agents or dealers, packed with straw in long boxes, and sent to England in such large quantities, that to withhold them would create an egg-famine in our markets.

Fish of nearly all kinds swarm in the seas and rivers. The Bay of Biscay and the Mediterranean yield shoals of the delicate sprat-like fish called the sardine, with which (preserved in oil, in tins) every English boy and girl is now familiar.

Mineral treasures exist in nearly all parts of France; but coal and iron are of the chief importance. France is next to England in the quantity of iron produce, although the quality is inferior, but the great disadvantage is that the iron and coal beds do not lie together as they do in England. The scarcity of coal, too, as compared with our country, causes the iron to be smelted with imported coals, which increases the cost of production for manufacturing or other purposes.

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at-tach'-ment
per-cept'-i-ble
oc-ca'-sion-al
boul'-e-vard
nox'-i-ous
sa-lu'-bri-ous
di-vers'-i-fi-ed
nĕ'-ces-sa-ries
pro-pri'-e-tors
bĕ'-ver-age
vi-cin'-i-ty
ne-ces'-si-ty
ĕ'-min-ence
fest'-i-vals
pop'-u-lace

"**Botanical zone,**" a belt or district characterized by the growth of certain plants.
Ir-ri-ga'-tion, means for causing water to flow over the land, the flow being regulated artificially.
"**Urban and rural,**" belonging to the city and the country.
Con'-sti-tute, make up, form.

We may divide France into three zones, or belts, with varied climate and productions.

1. *North of a line joining Nantes and Mezières. This is chiefly pasture land with fruit and timber trees. It resembles southern England.*

2. *The middle zone lies between this line and another drawn from Bordeaux to Besançon. This is mainly flat, and is the great corn-bearing country. The vine also is grown to perfection in some parts.*

3. *The southern zone often suffers in summer from drought and heat. Its chief productions are wine and olive oil. The western portion of this belt, near the Bay of Biscay, is a sandy marsh. Nice and Cannes on the Mediterranean, Montpelier near the Gulf of Lyons, and Avignon on the Rhone are celebrated health resorts in southern France. Wheat and wine are the chief products of the soil; coal and iron are the chief mineral treasures.*

LESSON X.

FRANCE.—AGRICULTURE.

AGRICULTURE and its allied industries employ five-sixths of the population of France, where landed property is more subdivided than in any other country. Farms, as a rule, do not exceed fifty acres; many are even as low as five, and the owner of 200 acres is looked upon as a leader of his class. As by the law in force since the Revolution estates are equally divided at death amongst all the children, this system of small farming tends to increase.* The fact that the peasant owns the land he tills, gives the strongest incentive to labour and thrifty husbandry. On the other hand, very small farms scarcely produce enough for a meagre living, and the soil is starved for want of capital. Thus, though in France there is a far larger number of people possessing property than in England, they are generally accustomed to rather poor living, and manage to save where English people would starve.

During the wars of the Revolution, and under the first Napoleon, France was cut off from the rest of the world, and thrown back on its own resources. Every hindrance was removed from agriculture, waste lands were brought into cultivation, and improved tillage and new methods were introduced. Napoleon, in his desire to injure England, put a stop to imports, with the idea that France could produce everything for itself, and ought not to feel in war-time the loss of foreign supplies.

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* Of course there is a limit to this process, and sometimes one of the children arranges to buy the shares of the others. Then also the number of children in a family in France is generally less than in England, and the population scarcely increases at all.

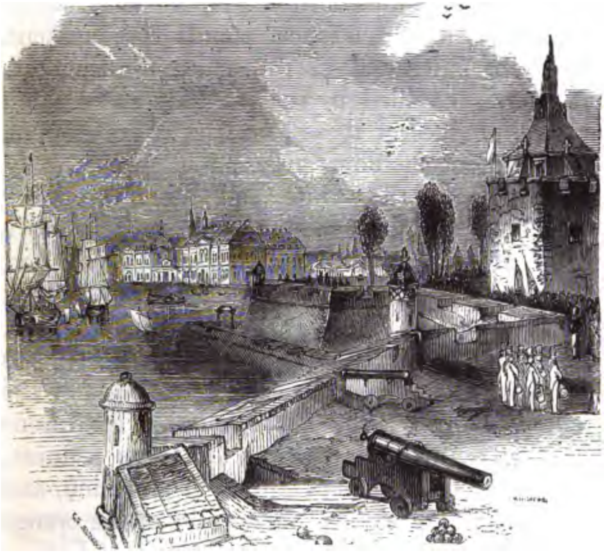
But nations cannot, any more than individuals, be independent of each other, and yet make progress. Holland, for example, whose very foundations have been fished up from the sea, is without wood or iron of its own, and the piles by means of which, in the words of the national motto, "she strives to keep her head above water," are of foreign growth. Without imports, a nation would have no object in producing more things than its own people want, because there would be nothing to buy with the surplus. The great incentive to labour is taken away, and the fountain-head of wealth is closed. But if France sends away her surplus corn in return for English coal, the English are better fed, the French better warmed, and a stimulus to produce is given to both countries.

In this exclusion of foreign commerce, France suffered most from the loss of what is called colonial produce, the chief of which was sugar, almost a necessary of life; and the sugar-beet was introduced to supply the want. The growth of beet has increased in France to large dimensions, but only by keeping out the better and cheaper cane sugar; so that, for nearly a hundred years, the people have had to pay more than its value for this useful article, in order to keep the sugar growers from ruin.

Nearly every agricultural product in France gives rise to a manufacturing industry, from the wheat, of which bread is made, to the forests which furnish the joinery and household furniture, and the sheep which supply the wool for clothing. The apples and barley grown in the north are utilised for cider and beer, while every cottage has its patch of flax to furnish the yarn spun at home, to add to the frugal income. This yarn supplies the seats of linen manufacture with the raw material for the fine fabrics for which France has long been famous. Butter and cheese, the produce of the rich pastures of the same parts, are manufactures, and at the same time part and parcel of husbandry. They belong, therefore, to both industries rather than either alone.

Wheat, the chief cereal of France, grows in every part, but mainly in the central zone. In the south its place is taken by maize, or Indian corn; but the staples of this division being wine and oil, large exchanges take place yearly for bread-stuffs, of which the French are great consumers, eating bread with every dish. Corn, therefore, is always dearer in the south than in the north.

Next to the cultivation of the various sorts of corn, the vine and the vintage are the most important branches of agricultural industry. The vine varies in character from local causes, soil, and skill in cultivation; and the different wines produced, of which Claret, Burgundy, and Champagne are the principal, are too numerous to name. Vineyards spread over the provinces, favoured by the proper conditions of climate, and afford a lively spectacle of busy labour during the vintage season. At other times the vineyards are not so interesting as one's fancy pictures. The vines are trained on short poles, and kept low, resembling English



BORDEAUX.

currant bushes; but they bear heavy burdens of purple grapes. In Italy, where the vines are trellised from tree to tree, the vineyards are more beautiful, and recall the striking appearance of an English hop-ground at its best. Besides wine, brandy—also obtained from grapes—is a manufacture in which France stands pre-eminent. Olives are cultivated in the south for their oil, but this is excelled by that of Italy and Spain; and the produce of these countries is drawn upon to supplement the home growth.

Millions of the white and black mulberry flourish in the same region, the fruit being a luxury to the palate, while the leaves support innumerable silkworms, the mainstay of the silk manufacture of Lyons, Paris, Nismes, Avignon, and Tours. The celebrity of the French silks is due quite as much to the taste and genius of the people in design, as to the favourable conditions for silkworm culture. Dry fruits — as walnuts, chestnuts, and hazel nuts—grow in profusion, and in the warmest parts, the juicy fruits of the orange tribe. Early vegetables, strawberries, and other fruits for the English market, repay the careful tillage of the northern provinces, and the soil of Bordeaux yields a surplus for shipment of the finest onions and potatoes.

Though the agriculture of France is so very important from the large proportion of the people who have in it a direct interest, and though the science of the century has brought new land and new kinds of produce into cultivation, and new highways, canals, and railroads have brought markets within easy access, still the modes of culture in many of the outlying districts remain very rude. An antiquated system of fallows in most districts has not yet given way to the scientific succession of crops. Farm implements remain clumsy ; machinery is nearly unknown ; the harrows have wooden teeth ; ploughs are wholly of wood ; threshing is done in the open air with the flail ; and treading out the corn has not disappeared. Father and son are content to hand down the family traditions without an idea of changing their mode of life, or adding to their frugal enjoyments.

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re'-sourc'-es
co-lo'-ni-al
ex-clu'-sion
sci-en-ti'-fic
in-de-pend'-ent
a-gri-cul'-tur-al
ce-lĕ'-bri-ty
trel'-lis-ed
di-men'-sions
spec'-ta-cle
ex-cel'-led
ma-chin'-e-ry

In-cent'-ive, that which rouses up to action.
Stim'-u-lus, literally a goad or prick, something which urges on to action.
Sup'-ple-ment, that which fills up, or perfects, or completes anything.
Fal'-lows, land left idle to recover from exhaustion by previous crops.

Agriculture is the chief industrial occupation in France, and the land is much more subdivided (that is, split up into small farms) than in England. Butter and cheese are made largely in the north-west.

Mulberry-trees are grown in the south for the support of innumerable silkworms, the mainstay of the silk manufacture of Lyons and other towns.

LESSON XI.

FRANCE.—MANUFACTURES AND COMMERCE.

MANUFACTURES are founded upon vegetable, animal, and mineral resources, which in their rough state as first gathered are called raw material. Thus corn, wool, and iron ore are raw materials. These materials are changed by labour and skill into simple manufactures or first products. Iron ore is smelted into pig iron, which is a first product—the starting-point for the manifold uses to which this metal is put. Flax fibre is spun into yarn, from which linen is woven. The processes of manufacture are often carried on at a long distance from the source of the raw material. All the cotton, for example, used in France must be imported or brought from abroad. Corn and beet-root sugar are but the first stage in French industries, carried on all over the country, but which have their centre in Paris. The French are renowned as a nation of cooks, and even the poorest peasant knows how to turn food substances to account, which the better-paid English labourer allows to be wasted. Cooking and confectionery are raised to the rank of an art.

The textile (or weaving) industries, those dependent upon vegetable and animal fibres, such as flax, cotton, wool, and silk, are very important. The manufacture of linen gives employment to a great number of persons. Brittany produces coarse linen, sack-cloth, and canvas. Cambric, named from its first place of manufacture, is still made at Cambrai, Valenciennes, and other towns; also thread lace of such beauty and durability that age adds to its value.

The cotton manufactures are barely more than a century old, and as no laws obstruct the free admission of *raw material* from its place of growth, the Americans being as glad to sell it as the French are to buy it, the industry has flourished through all the wars and changes which the country has seen. France cannot compete with England in this branch of skilled labour, having to import coal and iron and machinery from the abundant stores of her neighbour to make up for the inferior produce of her own mines. Cotton textures are made in most of the seats of the linen industries, and beautiful imitations of the costly cambrics and lace are produced, which, though less durable, are cheap enough to be within the means of the poor.

The oldest textile industry in France is that of woollen cloth. The great flocks of sheep that roam over the mountains of Languedoc provide the raw material for serges and coarse cloths, which the peasants make in immense quantities at home. Fine and durable cloths are made at Sedan, in Champagne, and in Normandy. Connected with this industry is that of the cashmere fabrics, made from the long silky hair of the Cashmere goat, a flock of which was brought to the Pyrenees about sixty years ago. These beautiful soft products of the French loom now excel the finest Oriental shawls. In the manufacture of silk, as of wine, France is superior to every other country. In France silk takes the place of the cotton manufacture of England as the staple industry. Lyons is the principal seat of the trade, but Paris, which, like London, represents every branch of national industry, is only second to Lyons in that of silk.

The minor manufactures, some of them of great value, are almost endless. Paper-making, especially of the finest kinds, reaches perfection, that of Annonay having been famous for generations. Leather of every sort is also produced with the highest art and skill. The tobacco growth and manufacture are Government monopolies and a rich source of revenue. The porcelain of Sèvres and the tapestries of Gobelins are carried on as national works, at a loss, but with a view to improve the general industry. Articles of taste and luxury, and what are known as Paris wares, jewellery, watches, carvings, and ornamental work, display a delicacy of taste which no other country approaches.

Owing to a system of excluding, as far as possible, foreign manufactured goods, for the purpose of encouraging home manufactures, French trade is more confined to the home markets than English trade is. It is therefore less subject to fluctuations, but its extent is diminished. Raw materials for manufacture, such as cotton and silk, are admitted freely, but other produce only on a small scale compared with the rank and wealth of the country. Nevertheless, the commerce of France is next to that of England in magnitude; and the tendency to free exchange, encouraged by Napoleon III., and the multiplication of railroads, have in recent years caused commerce to increase very greatly.

Another circumstance injurious to foreign intercourse, and arising out of Napoleon's wars, was the loss of the French colonies, taken by the English, and the destruction of their merchant fleet. France was thus isolated while the whole world was open to English merchandise.

Every large town in France has its fair, and the cheap carriage of merchandise to the different marts promotes inland commerce.

Every port, including the naval stations, is a seat of foreign commerce, carried on mainly with England and the United States, France sending out her manufactured goods, of which Paris furnishes a fifth part, in exchange for horses, cattle, tallow, hides, and wool, raw cotton and silk, metals and coal, and colonial produce.

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re-nown'-ed
su-pe'-ri-or
dě'-li-ca-cy
sim'-i-lar-ly
du-ra-bil'-i-ty
en-cour'-aged
fluc-tu-a'-tions
mer'-chan-dise
por'-ce-lain
com-mod'-i-ty
in-jur'-i-ous
rě'-ven-ue

Con-fec'-tion-e-ry, sweetmeats of all kinds, made chiefly of sugar.

I'-sol-at-ed, cut off from others, standing by itself.

Tex'-tile, connected with weaving.

O-ri-ent'-al [*oriens*, rising], the sun rising in the east, the word has come to mean what is towards the sunrise, or shortly the eastern countries, or east.

Mon-o'-pol-y, an exclusive right to deal in some article of trade.

Silk, cotton, woollen, and flax manufactures are all textile industries of France; but the places of manufacture are more scattered than those in England.

Silk is manufactured principally at Lyons, St. Etienne, Nismes, Tours, and Paris.

Woollen, linen, and cotton manufactures are chiefly confined to the north of France; the chief manufacturing towns being Lille, Cambrai (whence cambric), Rouen, Roubaix, Amiens, Rheims, and Valenciennes.

LESSON XII.

FRANCE.—RACE, HISTORY, GOVERNMENT.

France derives its name from the Franks, a German or Teutonic tribe, which overran the country, then known as Gaul, when the decline of the power of the Romans caused them to call their legions home. These Frankish invaders bore about the same proportion to the native Gauls, or Celts, that the Norman conquerors of England at a later date did to the Saxons, older races of both countries being the real ancestors of the present populations. The Romans, on the other hand, during their long occupation, blended with the Celts, and left an impression never to be effaced on the language, manners, customs, and national character. The French language is based upon the Latin, with only an intermixture of Celtic and German. On the Spanish borders Basque is spoken, a strange and very ancient language, the tongue of a race inhabiting France before the Romans were heard of, or the Celts had invaded it. In Corsica Italian is the language, from the ame Latin source as French. Brittany, the ancient

Armorica, retains much of a British or Celtic dialect, allied to the old Cornish and Welsh tongues. The present population of France exceeds that of the United Kingdom, approaching 40,000,000, though it does not increase so rapidly, nor count so many to the square mile.

PARIS IN THE SEVENTEENTH CENTURY.

The history of France before the Great Revolution shows us a monarchy whose successive kings looked upon the land as a patrimony, held by right divine, whence they might extort great revenues. Had not nature lavished her gifts upon France, the kingdom could not have survived the ruthless wars, the oppression which consumed the resources of the country, and the taxation that drained the life-blood of labour. Notwithstanding the abundance of corn, wine, cattle, and fish, the poor endured through ages the extremes of hopeless want and misery. Wood was dearer there than at Venice, and fuel failed, because the King owned the forests and kept the trade in timber to himself. The peasantry were at the beck and call of the nobles, and forced to labour without pay. The aristocracy paid no taxes, but spent in luxury and at a profligate court revenues which corrupt collectors wrung from the poor. The extremes of heartless authority and of abject poverty were reached in the reign of Louis XIV., who in his absolute pride exclaimed, "The State! that is myself!" But the day of retribution was delayed till the reign of a more innocent but weaker successor.

A few bright spots illumine French industrial history when wiser counsels prevailed; they are confined indeed to the times of the gifted ministers Sully and Colbert. Sully had the happiness of serving a royal master, Henry IV., whose wish that every peasant should be well fed was an ambition nobler than the costly wars and indulgences of Louis XIV., which thwarted the efforts of Colbert. Sully found farming very backward, the implements rude, and the corn trodden out by horses and mules; the homes of the labourers dirty and comfortless; and intercourse so imperfect that famine raged in one province while plenty reigned in another. Corn varied in price in neighbouring places, but could not be transferred because of the bad roads, and still more because of the dues charged in going from province to province. When he began his administration the kingdom was deeply in debt. Sully restored order to the finances, yet relieved the burdens of the poor. "Husbandry and cattle-rearing," he says of France as an agricultural country, "are the two breasts whereon the kingdom is nourished; her true mines and treasures of Peru." He thought that kings should seek the welfare of their subjects as the true means of their own wealth and dignity. He not only freed his country from debt, but, before the death of the King at the hands of the assassin Ravaillac, he had changed it into a large surplus.

Colbert did for manufactures what Sully had done for farming. Though his efforts were checked by wars, he raised the revenues to a height never before reached, not by extra exactions, but by thrift, and by fostering the national resources, while he lightened the burden of taxation to the poor with dependent families. Our wonder is that Colbert, with a master so lavish in wanton luxury as Louis, was successful in any of his plans. With Colbert's death hope for France also died, and evil only remained.

The fanaticism of Louis in revoking the Edict of Nantes * banished half a million good

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* An edict published at Nantes, in 1598, by Henry IV., giving Protestants freedom to openly profess and practise their religion.

subjects with their industry and skill to other lands, with a large part of the national capital.

Unwise as he was cruel, he expelled from France his silk-weavers, who went to Belgium, Holland, and Spitalfields in London, to teach their beautiful craft to their hosts, while twice as many unwilling perverts were left behind awaiting in anger the chance to rebel; and the art for several generations was almost lost to France. Louis lived to see a smouldering hatred among his subjects, Europe arrayed against him, and his bitterest foes amongst those whom his bigotry had forced from their native lands into foreign armies and navies.

The Great Revolution of 1789 subverted the old order of things and placed power in the hands of those whom centuries of misrule had ill-prepared for its exercise. Excesses ensued at which "all the world wondered;" and no stable government has since ruled for any long period in France. The result of anarchy was the military despotism of Napoleon I., who fed the national passion for glory by successful war, which raised the martial prestige of France to the highest pitch, to be followed by a bitter downfall. The French are brave, high-spirited, and fond of war, and their martial songs are in praise of carnage; but their victories on land have usually been dearly bought by humiliating defeats afterwards, and the country is now left poorer in territory and in numbers than if the words of the last Emperor, "the empire is peace," had been wisely acted out. It has been in intervals of peace that France has progressed in agriculture, manufactures, and commerce, and it is owing to the arts of peace that the new Republic takes its place as one of the greatest Powers of Europe. The history of France is a satire upon aggressive war. Hundreds of millions of human lives and thousands of millions of treasure have been wasted on ruined armies and navies, while brief years of brilliant conquests have been followed by bitter defeat and loss. But in times of quietness the productive industries for which the genius of the people is singularly fitted, have made France a living example that "peace hath her victories no less renowned than war."

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con'-quer-ors
an'-ces-tors
peas'-ant-ry
il-lum'-ine
ter'-ri-to-ry
suc-cess'-ive
sur-viv'-ed
sub'-se-quent
coun'-sels
en-su'-ed
a-ris-to'-cra-cy
in-dul'-genc-es
ad-min-is-tra'-tion
gov'-ern-ment
hu-mil'-i-a-ting

Ef-fac'-ed, blotted out, taken away.
Pa'-tri-mon-y, something inherited from ancestors.
Lav'-ish-ed, given carelessly, given bountifully.
Re-trib-u'-tion, suitable return for the evil done.
Fos'-ter-ing, taking care of, nursing, promoting.
Fan-at'-ic-ism, religious frenzy, blind violent opinion.
An'-ar-chy, lawlessness, confusion.
Des'-pot-ism, the tyrannous rule of one man.
Pres-tige', weight or influence following on past success.

The population of France is nearly 40,000,000, *but there are, on the average, fewer people to a square mile than in the United Kingdom. The people are descended from the native Gauls or Celts, the Franks, and the Romans.*

Before the Great Revolution of 1789 *France was not a well-governed or a prosperous country, but during the past hundred years, especially in times of peace, her progress in agriculture, manufactures, and commerce has been very rapid.*

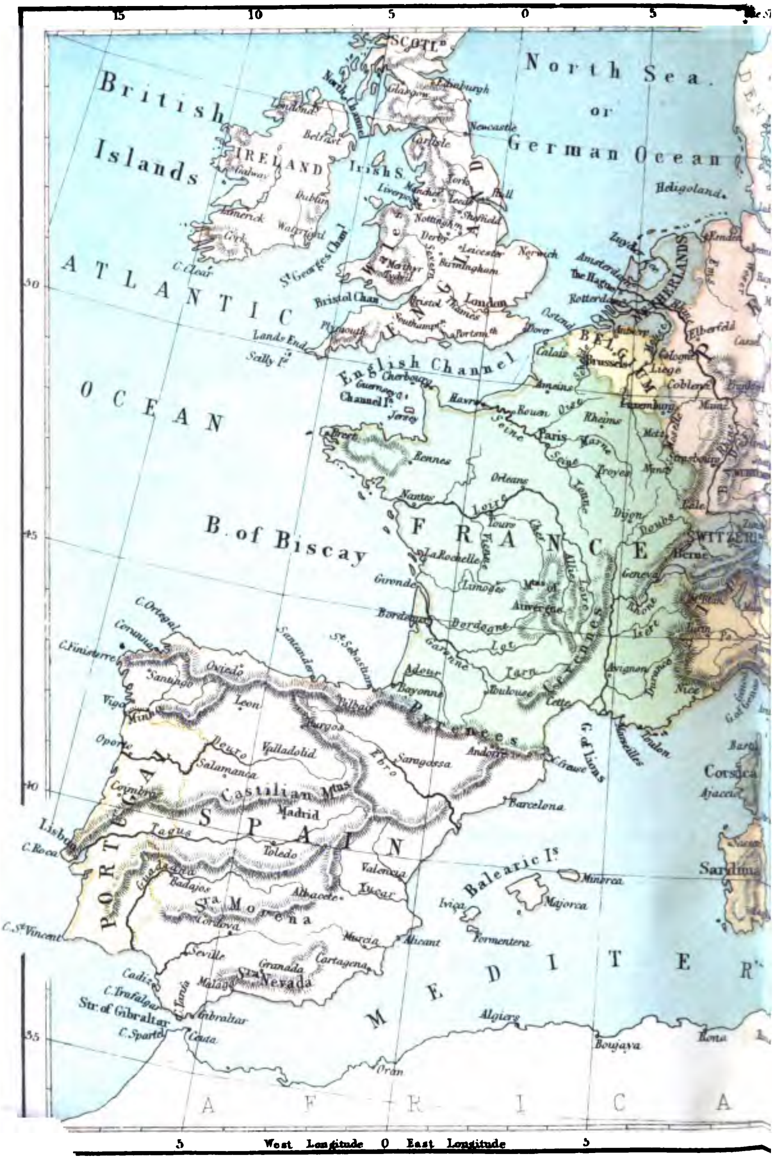
GERMANY.

LESSON XIII.

GERMANY.—PHYSICAL FEATURES.

THERE are three divisions of Germany—the Alpine, or upper; the hilly, or middle; and the flat, or lower. The Alpine (in the district of the Alps) is a mountain region in the south, which is the most picturesque; the hilly, or middle portion, is the most fertile; and the flat, or northern (nearest to the sea), is the most capable of improvement. From this description, it will be seen that mountains abound in the southern part, that a hilly or lower mountain region occupies a belt across the middle part, that the plain which forms part of this middle region is rich in produce, and that the low plain to the north is to a great extent barren and sterile. In fact, the northern plain, once covered by the seas, is flat and sandy—in parts near to the German Ocean and the Baltic Sea, even marshy—so flat that it has to be protected by banks against the inroads of the tide. This low region is a portion of the Great Plain of Europe, already described.

Germany is bounded on the north by the Baltic; on the south by Switzerland and the Alps, and partly


15
10
5
0
5
British Islands
SCOTLD
North Channel
Glasgow
Edinburgh
Londonderry
Belfast
Newcastle
Carlisle
North Sea, or German Ocean
IRELAND
Galway
Irish S.
York
Hull
Heligoland
Dublin
Liverpool
Manchester
Leeds
Limerick
Waterford
Sheffield
Nottingham
Cork
Derby
Leicester
Norwich
St. Georges Chan.
WALES
Merthyr Tydvil
Birmingham
ENGLAND
C. Clear
Zuyder Zee
Amsterdam
The Hague
Rotterdam
NETHERLANDS
Emden
Bristol Chan.
Bristol
Thames
London
Severn
ATLANTIC
Plymouth
Southampton
Portsmouth
Ostend
Dover
Calais
Lands End
Scilly Is.
BELGIUM
Brussels
Antwerp
Elberfeld
Cologne
Liege
Coblentz
English Channel
Cherbourg
Guernsey
Channel Is.
Jersey
Havre
Amiens
Rouen
Oise
Rheims
Luxemburg
Mainz
OCEAN
Seine
Paris
Marne
Metz
Brest
Rennes
Troyes
Strasbourg
Rhine
Orleans
Loire
Nantes
Dijon
Bale
Tours
Doubs
Zurich
B. of Biscay
FRANCE
La Rochelle
Vienne
Cher
SWITZERLAND
Berne
Geneva
Gironde
Limoges
Mts. of Auvergne
Allier
Loire
Rhone
Bordeaux
Dordogne
Garonne
Lot
Cevennes
Isere
Turin
Po
C. Ortegal
Corunna
C. Finisterre
Santander
St. Sebastian
Oviedo
Santiago
Adour
Bayonne
Tarn
Toulouse
Avignon
Durance
Nice
Vigo
Leon
Bilbao
Cette
Minho
Burgos
Pyrenees
G. of Lions
Marseilles
Toulon
Oporto
Douro
Valladolid
Ebro
Saragossa
Andorre
C. Creus
Salamanca
PORTUGAL
Coimbra
Castilian Mts.
Corsica
Ajaccio
Madrid
Barcelona
Lisbon
C. Roca
Tagus
SPAIN
Toledo
Valencia
Balearic Is.
Minorca
Sardinia
Guadiana
Badajos
Albacete
Jucar
Iviça
Majorca
Sra. Morena
Cordova
C. St. Vincent
Murcia
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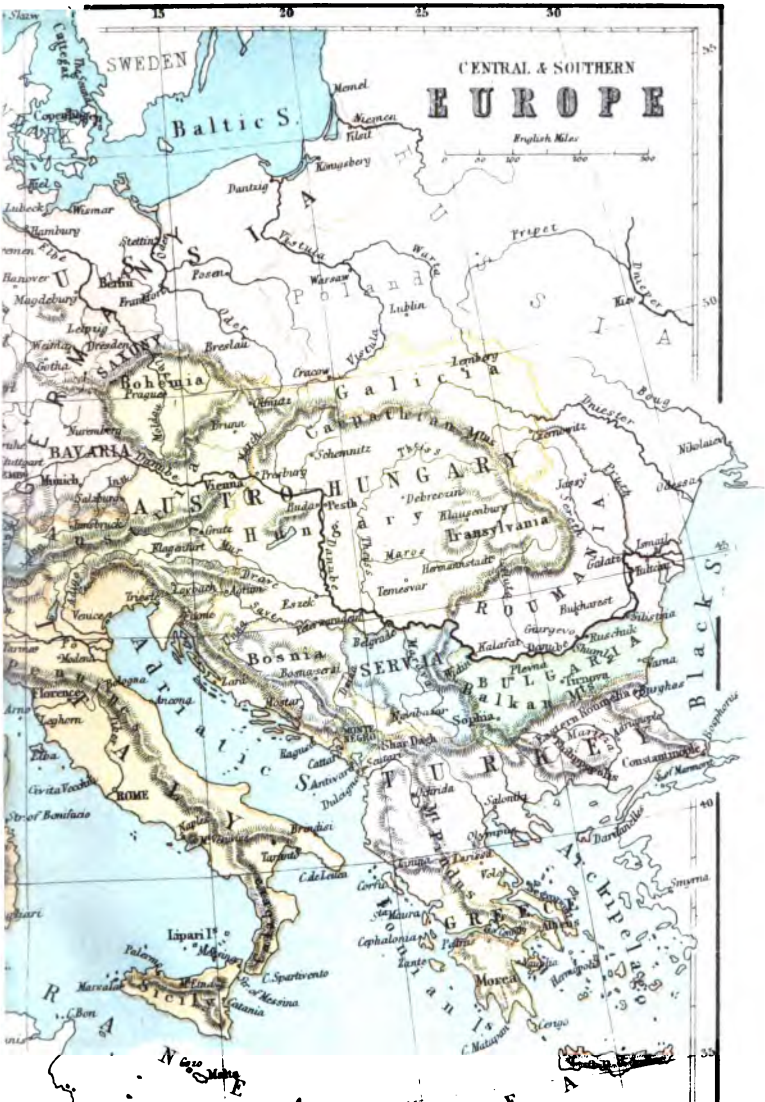

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by Austria; on the west by Holland, Belgium, and France, partly also by the North Sea or German Ocean; and on the east by Poland and Hungary. The country has an area of 284,000 square miles, being about twice and a half as large as the British Islands. The coast-line forms but a small portion of the boundary of the country.

In nearly the middle of the empire there is a single stretch of mountain heights, known as the Hartz Mountains. This zone of high land, about 20 miles wide, covers 1,300 square miles, and has for its chief peak the Brocken, 3,740 feet above the level of the sea. The mountains are rich in copper, lead, and silver to the west, and in iron to the east, and the mines afford the means of living for the inhabitants of forty towns dotted about the mountain slopes. From October to May the extreme heights are covered with snow; whilst below the snow-line woods abound in great profusion. Some of these woods, or forests, shelter various kinds of game—stags, roebucks, foxes, wild boars, and wild cats.

In such a vast country we look for a great variety of scenery. Northward and eastward there is but little to charm the eye; the district is a great plain sloping towards the sea, and having sandy wastes, partly covered with juniper and gorse, with woods here and there, and occasional patches of drained land that may be ranked as fertile. The fine plain that lies southward of the Hartz Mountains and is hedged-in by the Bohemian

Forest on the south-east, the Vosges Mountains (dividing it from France) on the south-west, and the Alps in the shape of a horse-shoe on the south, is, together with the surrounding heights, the district that attracts hundreds of thousands of visitors every summer to view nature in her grandest form and most charming dress.

From the Swiss Alps there is a long belt of high land running northward known as Schwartzwald (*Schwartz* meaning "black," and *wald* a "forest"—the Black Forest), in which hundreds of towns and villages are embosomed. The people living as farmers, woodmen, &c., and many as toymakers, lead a pleasant existence. This high belt divides the southern end of Germany into two great river basins, throwing off down its western slopes waters to feed the Rhine that flows northward to the German Ocean, and on its eastern side scores of streams to swell the bed of the charming Danube that races across Austria to the Black Sea.

The facts that the mountains lie so far inland and that the land slopes toward the sea give us reason to expect that long rivers stretch across the country from south to north, and this is really the case. The whole empire is seamed with watercourses, and hundreds of them flow into the deeper valleys to make fine noble rivers. Far among the Swiss Alps the Rhine rushes over crags and boulders in a deep ravine along the south of the Black Forest, and then in between the Forest and the

Vosges Mountains through the western borders of Germany till it reaches Holland.

Then there are large but slow rivers favouring navigation almost up to their source, as the Weser and the Elbe, that empty their waters into the German Ocean; the Oder, the Vistula, and the Memel into the Baltic; being at such regular dis-

HEIDELBERG ON THE NECKAR.

tances apart as to give a most wonderful facility for trade and commerce. All these streams, except the upper part of the swift and rock-bound Rhine, flow through low-lying land along the greater part of their course. Among the mountain heights, too, there are some charming lakes, the one called Lake Constance, in the extreme south, measuring 200 square miles. And in the northern plain there are more than a thousand lakes and lagoons, chiefly along the coast, where the land is so low that the sea is often a trespasser for a great distance.

pic'-tur-esque	**in-hab'-it-ants**	**căp'-a-ble**
pro-fu'-sion	**oc-ca'-sion-al**	**scen'-e-ry**
fa-cil'-i-ty	**em-bo'-som-ed**	**ex-ist'-ence**

Germany has two and a half times the area of the British Islands.

The southern zone is very mountainous. It includes a part of the Alpine district. The middle zone is hilly and fertile; it includes the Hartz Mountains. The northern zone forms a part of the great European plain, and is sandy and marshy, and not well suited for agriculture.

Iron, copper, lead, silver, and other metals are found in abundance in the Hartz Mountains.

The chief rivers of Germany are the **Rhine**, **Elbe**, *and* **Weser**, *flowing into the German Ocean; and the* **Oder** *and* **Vistula**, *flowing into the Baltic. The* **Upper Danube** *flows through the southern States.*

LESSON XIV.

GERMANY.—CLIMATE.—RESOURCES.

As *climate* is the result of several causes, a vast region like Germany—measuring nearly 600 miles in length and 550 in breadth—must vary much in different parts in respect of both temperature and productions. There being about 7° of latitude from the extreme north to the extreme south, we should naturally expect to find the northern part much colder than the southern; but there are various causes which modify this supposed result. Some portions of the extreme south are much colder on the average than those of the north, and portions of the central region are warmer than either the plains of the north or the hills of the south.

There are three separate zones or belts of climate across Germany — the northern, middle, and southern. If each of these belts could be planed to a level surface, the *northern* one would lie the lowest, the *middle* one somewhat higher, and the *southern* one the highest, making a series of shelves. The *northern* belt has a low and flat surface gently sloping towards the Baltic and the North Sea, with hundreds—almost thousands—of pools or lagoons towards the extreme north and north-west. The marshy nature of the soil causes fogs to rise, and these are increased by a moist air flowing from the sea. The fact of this belt being so much further north than the other two zones would account for its being colder; but the air is warmed and tempered to some extent by the Gulf Stream washing the shore, as is the case in England, Scotland, and Ireland.

The *middle* zone has, over the greater part, perhaps the finest climate in Europe—an elevated surface, over which there is during most of the year a serene sky, and fertile vales sheltered from the cold fogs of the north by a belt of hills. The valley of the Upper Rhine, rich with grape vines, yields abundance of splendid grapes, and affords the means of wealth in the production of wine.

The *southern* belt has many mountain ranges, including the Alpine slopes; and here there are two extreme shades of climate. The mountain heights are—some of them—clad with snow all the year round, and here icy Winter wraps his cold garments over the land. But in the rich valleys sheltered by these hoary giants from the sweeping blasts that chill the slopes and summits, the climate is warm, sunny, and of a kind common to the region of Italy.

Although the country is not naturally so rich as France, yet Germany has considerable resources in the vegetable, animal, and mineral kingdoms. Its sterile tracts are amply made up for by regions of great fertility and of metal-bearing rocks. One-third of the country is forest, consisting of noble oaks, beech, ash, poplar, birch, and elm. In the warm and sheltered parts the walnut, chestnut, almond, and peach flourish well. The sandy plains of the north are covered in many parts with the pine and fir, most abundant along the banks of the Oder and the Elbe, and seldom mixed with other trees.

Vast meadows in the neighbourhood of the rivers alternate with the sombre forests, and are the feeding grounds of multitudes of cattle and sheep. The soil everywhere, more or less, favours the growth of the finest vegetables used for food, and their culture has been carried to the highest perfection. The cabbage surpasses any grown elsewhere, even that of Belgium, and prepared as *sauer kraut*,* is exported abroad. Potatoes, turnips, carrots, peas, and beans yield manifold returns, both in weight and quality, and from their culture, with that of every kind of orchard fruit, many thousands of the people derive their means of subsistence. Harvests of grain reward the husbandmen, from the exotic maize in the south to the wheat and rye of the midland States, and the buckwheat of the northern sandy plains. Barley and hops, from which the national beverage —beer—is brewed, grow in profusion.

Flax for the home manufacture of linen, and its seed—called linseed, for the sake of the oil—are grown by the cottagers; but hemp for coarse yarn, though suited to the soil, and in Baden growing to the height of a tree, is but little raised. The Germans are great smokers; the tobacco grown by them, however, is inferior of quality. The Rhine provinces produce wines under the name of Hocks, esteemed as highly as those of France, but of a different character. The cultivation of the vine dates back to the time of the Romans, and now extends through the southern States.

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* Pronounce *sour crout*.

Wild animals abound in the forests. The chase furnishes the most exciting rural pastime for princes and nobles, and venison and wild boar for their food. Small and feathered game, including water-fowl, is more abundant and various than in any other European country; and domesticated fowls, ducks, and geese flock about every homestead. In oxen and dairy cattle the Germans do not excel. Improvements in breeding are in progress, but the animals are not so strong for draught, or so profitable for food, as in some other countries. The original sheep of Germany were a coarse-woolled race, but have been so changed by crossing with the merinos of Spain that the wool, particularly that of Saxony, is the finest produced. In the States of Bavaria, Westphalia, Hanover, Mecklenburg, and Pomerania, swine are of more account than cattle or sheep. Westphalian hams are celebrated everywhere.

Heavy cavalry horses are raised in several ot the States, and are valued also for draught; but the horses generally are poor, and the supply of finer kinds has to be drawn from abroad.

Fresh-water fish, with which the rivers teem, supply a profusion of food to the cities and towns; sea-fish, owing to the distance of transit, are pretty well confined to the maritime markets.

The mineral resources of Germany are metals, building stone, marbles, salt, and coal. The

Erzgebirge and Hartz Mountains contain the richest stores of iron and other metals, and yield more silver than any other part of Europe. Coal is abundant, but the cheapness of wood and turf has created a prejudice against its use, either as fuel or for smelting.

tem'-per-a-ture
vĕ'-ge-ta-ble
sub-sist'-ence
ven'-i-son
sĕ'-par-ate
in-creas'-ed
al'-tern-ate
in-fe'-ri-or
a-bun'-dance
re-sourc'-es
bev'-er-age
pre'-ju-dice

La-goons', shallow lakes having communication with the sea.
Som'-bre, dull, gloomy.
Ex-ot'-ic, not native; introduced from a foreign country.
Mar'-i-time, belonging to the sea [from *mare*, the sea].

The climate of Germany is temperate, but the extremes of heat and cold are greater than in England. The temperature of the southern zone is lowered by the presence of mountains whose peaks are covered with perpetual snow.

The chief vegetable productions are timber (forests cover one-third of the country), grapes in the valley of the Rhine, corn, vegetables used as food, flax, and tobacco.

The chief mineral productions are coal, iron, copper, lead, silver, building stone, marble, and salt.

The Saxony sheep yield fine wool.

LESSON XV.

GERMANY.—HISTORY.—GOVERNMENT.—ARMY.

THE industrial history of Germany begins from the time when the northern races invaded Italy, overthrew Rome, and copied Roman arts. Germany, to the east of the Rhine, was never occupied or civilised by the Romans during the time of their dominion. The great German Emperor, Charlemagne (about 800 A.D.), did much to promote handicrafts and trade. From the nature of the country the commerce was principally inland, goods from the Mediterranean being taken across from the Adriatic to the shores of the northern seas. Along the lines of route, the resting-places of the traders grew into rich and powerful merchant cities, such as Vienna (the capital of Austria, that country then forming part of Germany), Ratisbon, Ulm, Augsburg, and Nuremberg. Such cities formed leagues for protection against the plunder of bold knights and robbers who beset the highways. Of these associations the Rhine, the Swabian, and the Hanse Leagues are of chief historic note. The greatest of them, the Hanse or Hanseatic League, which derives its name from the old German word *hansa*, a troop or society, extended its care to both land and sea traffic, and wherever its agencies appeared commerce progressed. The cities of Lübeck, Bremen, and Hamburg were at the head of this league, but before long the trading cities of Spain, France, England, the Netherlands, Sweden and Norway, and Russia coveted its alliance; and its power insured security and peace from London to Novgorod (in Russia).

With the extension of ocean commerce by the discovery of America, and the new route to India round the Cape of Good Hope, the power of the Hanse League declined, and almost continuous war during the eighteenth century brought Germany to the lowest ebb of fortune. Frederick the Great found time amid incessant war to encourage every branch of industry. By reclaiming wastes, digging canals, making roads, and establishing factories, he laid the foundation of the greatness and prosperity of Prussia. During the American War of Independence and the French Revolution, Germany profited by supplying the wants of the belligerents; and agriculture and trade made rapid advances, only to be crushed again by Napoleon's exactions when he overran the country and laid an embargo upon all foreign commerce. In 1806 a union, called the Confederation of the Rhine, was established by Napoleon to promote intercourse between France and Germany, which lasted, to the benefit of both countries, throughout the period of his power.

After his downfall in 1815, the Germans resumed independent possession of the Rhine provinces, and formed amongst themselves, for mutual defence and trade, a Germanic Confederation, or union of all the States. This union had its first meeting in 1816, at Frankfort, and Austria had the chief influence. The long interval of war, however, had made England the mistress of the sea and the maritime carrier of the world, and Germany could not regain at once the foreign commerce she had lost. Each State kept the management of its own affairs in its own hands, but questions of peace and war were reserved for the Diet, or Supreme Assembly. As a consequence the trade of one State with another was hampered, even within German territory, by the dues charged in transit through every separate State. A vessel ascending the Rhine paid toll at twenty-seven different places—a disadvantage so great that it suggested a Customs' Union, or Zollverein. By means of this the duties on goods were levied once for all at the first frontier, after which they were allowed to pass free through the other States, the revenue being afterwards divided according to the population.

The Jubilee of the Diet in 1865 was marred by disputes between Prussia and Austria respecting Schleswig-Holstein and Lauenburg, provinces with a German population, which Prussia took from Denmark. Prussia withdrew from the Confederation, and the North German and South German States formed separate leagues, with Prussia at the head of the former, and Austria at the head of the latter. Again, in 1870, the history of Germany was modified by the events of the war between France and Germany, which humbled France, wrested from her two fair provinces—Alsace and Lorraine—exacted an indemnity of £200,000,000 sterling, and gave to the Prussian king the title of Emperor. Austria has now no political connection with the German Empire; and Prussia is so far in advance of every other State, that its own provinces are hardly more subject to the imperial power than are the States both north and south which before were independent. The capital of the empire has been transferred from Frankfort to Berlin, where the Parliament now meets. Questions of war and correspondence with foreign Powers belong to the Emperor of Germany, who is also King of Prussia.

Apart from Alsace and Lorraine and three Free Towns, the empire is composed of twenty-two States, the sovereigns retaining their titles of King, Grand Duke, or Prince. The chief of the Northern States are Prussia, of which Berlin, on the Spree, is the capital; Saxony, of which Dresden is the capital; Mecklenburg; and Oldenburg. The chief Southern States are the kingdom of Bavaria, with Munich for its capital; Würtemberg, with Stuttgart; Baden, with Carlsruhe; and Hesse Darmstadt. The former Free Cities of Lübeck, Bremen, and Hamburg have now lost their greatest privileges, and become merged in the empire.

Germany, under the empire, has a population of about 43,000,000, in the proportion of nearly 200 to the square mile—densest in the Kingdom of Saxony, fewest in the Grand Duchy of Mecklenburg. The Germans have an intense love for their fatherland, though their resources are heavily drawn upon by the necessity of defence. An army ready for active war, of 750,000 men, is added to by a reserve or *Landwehr* (land defence) of more than a million, liable at the shortest notice to serve. The creation of this *Landwehr* was due to Napoleon, who, in order to keep the country defenceless, insisted on the maintenance of the smallest possible standing army. The Prussians then, by devising a short service system, which trained in turn every section of the people able to carry arms and afterwards drafted them into the reserve, converted the whole nation into soldiers, and in the end brought fearful retribution upon their French oppressors.

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civ′-il-is-ed
op-press′-ors
ex-ten′-sion
cor-res-pond′-ence
in-ces′-sant
fac′-tor-ies
con′-se-quence
re-trib-u′-tion
in′-ter-course
in-de-pend′-ent
trans-fer′-red
main′-ten-ance

Bel-li′-ger-ent, a nation or state carrying on war with another nation or state.

Em-bar′-go, an order forbidding the entrance of ships into or departure from a port.

Con-fed-er-a′-tion, a league, a combination for mutual support and assistance.

Ju′-bi-lee, a rejoicing at the end of fifty years.

In-dem′-ni-ty, compensation for loss or damage sustained.

The Germanic Confederation, or union of all the States for trade purposes, was formed in 1815. *The representatives of the various States met at Frankfort, and were presided over by Austria.*

In 1865 *the Northern and Southern States formed separate leagues, Prussia at the head of the Northern, and Austria at the head of the Southern.*

In 1870, *after the war with France, Alsace and Lorraine, two French provinces, were added to the Northern Confederation, which was at the same time consolidated into an Empire, with the King of Prussia at its head.*

The population of the German Empire is about 43 *millions.*

LESSON XVI.

GERMANY.—AGRICULTURE.—INDUSTRIES.

THE natural resources of Germany are sufficiently varied to encourage every branch of industry —agriculture, manufactures, and commerce. The soil does more, however, than law and custom for the welfare of the people. Agriculture is fettered by the rights of the princes and nobles over the land, which have come down to them from feudal times ; manufactures by the rules of close guilds or corporations, to which the producers are compelled to belong ; commerce by laws forbidding many imports thought to do harm to home production. Most of the land in every State belongs to the prince, who farms part through his own managers, or bailiffs, and allows tenants to till the rest, in small holdings, but claims the right of pasturage on their fields after harvest.

Rye is grown more than wheat, barley, or oats, and is followed usually by a crop of flax, the spinning of which affords occupation for the peasant women during the long cold nights of the severe winter. More wheat is grown in the south than in the north but the farming is scarcely improved from that of remote periods, and the old system of forced and unpaid labour on the lords' estates is not yet utterly dead. These services tend to lessen the rents ; but, rendered unwillingly, they are badly performed. The smallness of the holdings keeps the tenants poor, who, without capital, coarsely clothed, and living mainly on rye and potatoes, can do little to improve the soil. As a consequence, though the soil is in many parts richer than that of England, the produce does not reach two-thirds of that of our country, and the grain is inferior.

Before 1810 the condition of the peasantry was even worse. Germany, including fifty free cities, was then parcelled out amongst three hundred princes and nobles, with sovereign rights. Nearly the whole of these powers were swept away by the revolutionary war; Bavaria, Saxony, and Wurtemberg were enlarged into kingdoms; most of the princes were deprived of power and made subject to neighbouring States, but allowed to keep their domains, at least in name. These changes brought Germany nearer to the unity which the people longed for, and by so much lessened the number of jealous regulations that had kept the petty States apart. Now there is one united empire, its interests as a whole will be thought of, and the separate interests of its parts will not be likely to run counter to each other. Still, so many hard distinctions remain between the peasant and his lord that to be drawn for a soldier is often an advantage to the labourer, in giving him better food, clothes, and pay, while many thousands of the people every year seek other countries as a better field for their enterprise. Indeed, the young men of Germany emigrate to America in larger numbers than those of any other country.

The domains of the nobles are better cultivated than are the tenant farms; but the bailiffs are still bound by old customs, which have long gone out of use in England, and do not work with the thrift of owners; and thus even the best land is less productive than it could be made to be.

Under such a system the agricultural produce of Germany is nearly confined to the bare necessaries of life, the chief exceptions being wine, flax, oil, and vegetables.

The forests cover so much ground that the growth of timber is not an art as in England and Scotland; but the felling of it employs many hands, and prepares the material of industries in ship and house building, and cabinet-making, leaving a vast quantity for export in rafts, which are sent down along the rivers to the sea. Even here the ancestral rights of the nobles, who claim the annual cuttings, and derive from them a large revenue, cramp the skill and labour, and seriously diminish the profits, of the woodmen.

Gardening, left more to individual skill and thrift, is a general and widespread occupation. Not only do the princes surround their palaces with beautiful grounds, but, favoured by climate and soil, they produce the finest food plants in Europe; and many of their dependants find a subsistence from the culture of pot herbs and fruit. The vine culture does not exceed one-sixth of that of France, and much of the wine, of an acid and indifferent flavour, is the product of but a small part of the empire, and is largely confined to home consumption.

The annual clip of wool, like the cuttings of timber, is usually the property of the lord, and one of the chief sources of his income. Improvement, therefore, in the breeds of sheep has been a vital necessity, and the rough original variety has been gradually supplanted until the Saxony fleece is superior to that of the famous merino flocks of Spain.

The German industries differ from those of England, and even of France, for there are fewer great factories filled with machinery; the woven fabrics to a large extent are the produce of home looms, or mills on a small scale, and the working of cotton, woollen, linen, and silk goes on in one and the same town. Economy of manufacture cannot thus be so completely attained, and the goods could not, because of their dearness, stand their ground against the cheaper foreign cloths, except under the system of checking the introduction of foreign manufactured goods by the imposition of a high duty. Hand labour, however, tends to excellence of workmanship, and the Germans will not admit that any fine linens or woollens in the world surpass those of Saxony, Silesia, or the Rhine provinces, made from yarn of native growth.

Besides these industries, largely dependent on the husbandmen, immense quantities of beer are brewed and spirits distilled from barley, together with vinegar from the grapes that do not mature for wine.

fet′-ter-ed
com-pel′-led
ne′-ces-sa-ries
ma-chin′-er-y
bail′-iffs
fab′-rics
fŏ′-reign
ex′-cel-lence
con′-se-quence
e′-mi-grate
peas′-ant-ry
re-vo-lu′-tion-a-ry

"Feudal times." In olden times lands were held from the great lords and owners of the soil, on condition of military service. The property of the soil always remained in the lord or superior.

In Germany, agriculture is not carried to such a high state of perfection as in England or Scotland, and the produce is not more than two-thirds of that of our own country. Rye is the chief corn grown, but wheat, barley, oats, and maize are also raised in quantity.

The woven fabrics of Germany are to a large extent the produce of home looms or mills on a small scale; and the manufacture of goods from one kind of material is less confined to particular towns than in England. The making of cotton, woollen, and linen goods often goes on in the same town.

LESSON XVII.

GERMANY.—MANUFACTURES.—COMMERCE.

ALTHOUGH three-fourths of the Germans depend upon the soil, and the further industries founded upon husbandry, for a subsistence, yet they are eminently a manufacturing race, and their towns have been from the Middle Ages hives of busy labour. Mining was a source of wealth as early as Charlemagne (at the end of the eighth century), between whose reign and the discovery of America, the mines of Saxony, of the Hartz and Erzgebirge Mountains, and other parts, added richly to the stores in existence both of the common and the precious metals, particularly of silver. Blasting with gunpowder was first practised in the Hartz mines, before which invention metallic ores were quarried like stone.

It was amongst the Germans that the manufacture of steel first assumed importance, and much of their early iron work remains as masterpieces of skill to this day. Nuremburg was the most renowned city for its metal handicrafts, which were shared by Strasburg, Augsburg, and other cities of the Hanse. The armourers of these cities were famous throughout Europe, but though their art has gone out through changes in the modes of warfare, and other sites have assumed much of their varied industry, the mechanical skill of the people continues. Watches, probably from their shape, at first went under the name of Nuremburg eggs. Large numbers of clocks and watches are now made in the districts of Baden, Freiburg, and Neustadt;* and turret or church clocks in Munich, Dresden, Königsberg, and Breslau. The chief masters of the art of lock-making were Germans—an art which still engages the skill of many operatives. Warlike arms, both portable and large guns, form a branch of national industry, reaching great perfection. Their superiority aided the courage of the troops in the Danish, Austrian, and French campaigns, and led to the consolidation of the German Empire. The weapon used in these wars was the "needle-gun," which though now equalled, if not surpassed, by English inventions, was then far in advance of any other form of firearm. Krupp's foundry for heavy guns and for every kind of iron work is, perhaps, the largest in the world, and forms a town in itself.

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* Pronounce, Noystatt.

Hardly to be classed as a minor manufacture is that of paper, of which large quantities and many varieties are made to supply the vast demands of the German press. Printing and bookbinding amongst such a well-taught and thoughtful race, even in the small towns, are scarcely excelled in many of the largest cities of the world.

Earthenware is well made, and the imperial porcelain or china of Dresden and Berlin, of which beautiful examples adorn the houses of the wealthy in every land, are valued as highly as the costly products of Sèvres (in France) and Worcester (in England). Wooden toys of endless variety and of wonderful cheapness, which delight English children, come from Germany; and a thousand other minute manufactures are important means of employment to many of the inhabitants.

These manifold industries give birth to an active commerce, which from ancient date has been mixed up with the political history of the country. It was the citizen soldiers, both horse and foot, of the Hanse Towns who crushed the inland freebooters; and citizen seamen who fought against pirates and defended the Fatherland against the attacks of hostile States. The Hanse possessed its own mints for coining, but money was of little use except amongst its own members; and barter, or direct exchange of commodities, was adopted in dealing with the half-civilised races of the north—gold and silver being carried to and fro as merchandise, and exchanged by weight. The system of credit by means of bills of exchange was hardly known. With the decline of the Hanse, commerce decayed; and ruinous wars brought it almost to a close.

German commerce, in its present aspect, is the growth of the nineteenth century, and its character has been moulded by the Zollverein, or Customs' League, which has developed inland traffic, while it has checked, in a measure, foreign trade. Prussia, in proportion to its interests, should receive three-fourths of the tolls; but in order to induce other States to join, accepted less than half. The league has proved a blessing to the country, and, now events have brought about a united empire, the selfish isolation of jealous States, which the league had lessened, is in a fair way of being removed altogether. The success of the Zollverein has proved that no State suffers, and that each ne benefits by commercial intercourse; and the belief has gained ground that the same principle would hold good if applied to foreign trade.

Germany has, therefore, entered into commercial treaties with France, Austria, Belgium, and England, Holland, Switzerland, and Italy, by which each side pledges itself to favour the other in the exchange of goods by only moderate tolls or dues. Thus while the soil, the extent of the country, the climate, and the patient industry of the people remain the same, the simple freedom of trade has greatly increased the national wealth. Though the tariff of duties on foreign manufactures is still high, English goods, from their cheapness and excellence, find an entry, so that, next to the United States, Germany is the best of England's customers. The *exports* consist of wool, linen, timber, corn, provisions, and hardware; the *imports* of English manufactures and coals, French wines, colonial produce, and raw cotton. About half of the exports and a tenth of the imports are manufactured goods; the exports and imports of agricultural produce are more nearly on a level with each other; while of materials for manufacture—raw and partly prepared—the imports exceed twice the exports.

As in Russia and France, much of the trade of Germany is transacted at great fairs, those of Leipzig and Frankfort being the most important. The fair of Leipzig has no rival in the sale of books. It is held three times a year, and is attended by traders from every civilised division of the earth. Leipzig is also the centre of the German printing and publishing trade, many thousand volumes of classical and other works being issued from the press every year, and distributed over Europe and America.

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ex-ist′-ence
prac′-tis-ed
cam′-paigns
class′-i-cal
ar′-mour-ers
me-chan′-i-cal
por′-ce-lain
trans-act′-ed
o′-per-a-tives
com-mod′-i-ties
mer′-chan-dise
de-vel′-op-ed

The chief manufactures of Germany are iron and steel, fire-arms, hardware goods, clocks and watches, earthenware, paper, and toys.

The chief articles of export are corn (chiefly wheat and barley), flax and hemp, wood, wool, eggs, potatoes, sugar, and animals for food.

The chief imports are raw material—coal, iron, cotton, and woollen yarn—for manufacture; and French wines and colonial produce.

Leipzig and Frankfort are noted for their great fairs; the former especially for the sale of books.

LESSON XVIII.

GERMANY.—POLITICAL FACTS.—PRUSSIA.

PRUSSIA is the largest and in every way the most important part of the German Empire. It derives its name from an ancient race, the *Borussi,* who lived in the province now called Old Prussia, or Prussia
per, on the Baltic coast between the Vistula
the Niemen—a race now merged in the

German, and whose language has long been lost. Several of the provinces are only German in name, by forming part of the empire. As a kingdom, Prussia is not yet two centuries old; but its growth by conquest of adjacent States has been rapid beyond example. The first King was Frederick (formerly Frederick III. of Brandenburg), who was crowned in 1701. Frederick the Great (grandson of the first King), who reigned from 1740 to 1786, in that period doubled his dominions and the number of his subjects, taking at the beginning of his reign Silesia from Austria, and, later on, a part of Poland. The province of Posen, also part of Poland, was annexed in 1795; and at the rearrangement of Europe, on the fall of Napoleon in 1815, the Rhine provinces were absorbed, together with a portion of Saxony, forfeited by the ruler of that kingdom for siding with the enemy.

Thus settled, Prussia formed a straggling kingdom, with various detached parts separated by wide intervals, making it difficult to fix upon any certain length and breadth. By recent acquisitions—those of Schleswig-Holstein, Hanover, Hesse Cassel, Nassau, &c., gained by war in the years 1864 to 1866—the boundaries became further enlarged, and the area more compact. The longest line that can now be drawn across the surface is 800 miles, while the mean breadth is rather more than half as much. The surface is computed at nearly 135,000 square miles.

Until the last additions of territory, the Baltic was the only sea that washed the Prussian shores. Here the bays or *haffs* (several miles in extent) are more like lakes communicating with the sea. Such are the Kurische Haff, the Frische Haff, or fresh-water bay, Stettiner's Haff, from the town of Stettin, and various other smaller haffs, or lagoons, which are nearly land-locked. Thus the Gulf of Danzig, into which the Vistula flows, was the only harbour where vessels larger than boats could ride. Now, however, Holstein and Hanover have added a long reach of the North Sea coast, with the mouths of the Ems, Weser, and Elbe, and the important ports of Emden, Bremen, Altona, and Hamburg. The rivers whose courses are wholly Prussian, or nearly so, are the Oder and the Elbe. Berlin, the capital, is built on the Spree, a tributary of the latter river.

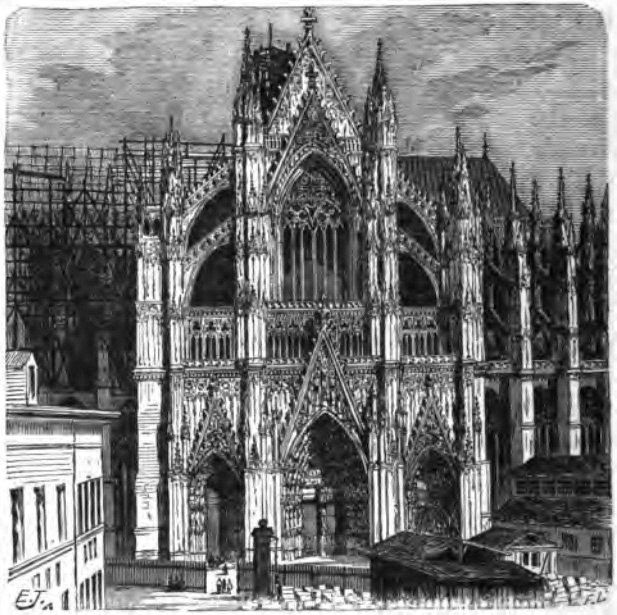
Rugen is the sole island of any importance, and lies off the north-western coast of Pomerania.

One-fourth part of Prussia is forest land, chiefly fir-trees, which flourish on a sandy soil. The whole country, except towards the south, is flat, forming part of the great European plain, and only the parts along the river banks, with a few broader tracts, may be described as fertile. Wild boars and wolves are numerous in the woods; immense numbers of hogs are reared in Westphalia, and geese in Pomerania. For a flat country minerals are well diffused. The broad heaths and morasses supply an endless quantity of turf for fuel; coal is abundant in Westphalia and the provinces of the Rhine; iron is found almost everywhere, and of good quality. The fossil resin, called amber, is dredged from the Baltic shores near the Kurische Haff, the source of the chief supply of the world.

The Prussians are mixed in race, though mainly German, speaking various dialects—Slavic in the most easterly parts. Lithuanians and Wends, or Vandals, with a peculiar language of their own, and many Jews are scattered through the kingdom.

The natural resources of Prussia give birth to industries of every character; vineyards along the Rhine; wood-craft in the forests, where multitudes of swine are reared upon the acorns and nuts which fall from the oak and beech trees; cattle and sheep-rearing; the mining of coal and lignite, or brown coal, iron, lead, silver, salt, and other minor products. In the Rhine provinces particularly metal work and textile fabrics, ribbons, and lace are so extensively made that small towns are connected for miles by the factories. Domestic looms make linens, cotton cloths, woollens, and silks; but mills for their production are increasing in number. Hardware, leather, glass, and pottery occupy many hands, and there are numerous distilleries and breweries. Nevertheless the people, as a rule, are poor; the bread is largely made of rye, which, with potatoes, is the general food.

Prussia owes much of its recent advancement to its system of *education*, which is amongst the most thorough in Europe. Care is taken that every child shall be sent to school, and openings are offered for children of talent to pursue their instruction through higher schools to the universities, of which there are no less than seven—in Berlin, Breslau, Halle, Bonn, Königsberg, Munster, and Griefswald.


COLOGNE CATHEDRAL.

Prussia contains between 400 and 500 towns, of which over 30 have each more than 20,000 inhabitants. The largest towns are Berlin, the capital, with above a million citizens, on the sluggish river Spree, situated in the midst of a low, sandy plain, which impairs the drainage; Breslau, in Silesia, with 240,000 inhabitants, and having the largest wool and linen fair in the empire; Cologne, the capital of Rhenish Prussia, with 155,000 inhabitants, a seat of the manufacture of silks, velvets, lace, cottons, and of an admired perfume, *Eau de Cologne*, which is used throughout the world. Cologne is also famous for its wonderful Gothic cathedral, which has been in course of building since 1248, and whose completion quite recently has been celebrated with national rejoicings. The ports of Prussia—such as Königsberg, Danzig, Stettin, Altona, &c.—stand next in population and trade.

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ad-jac'-ent
be-gin'-ning
an-nex'-ed
di'-a-lects
for'-feit-ed
dif-fūs'ed
mo-rass'-es
fab'-ri-cate
ac-qui-si'-tion
dis-til'-ler-ies
ca-the'-dral
cĕ'-le-brat-ed

Modern Prussia is divided, for administrative purposes, into twelve provinces.

Its area is rather more than double that of England and Wales.

Berlin (population 1,100,000), *on the Spree, is the capital both of the Empire of Germany and of the Kingdom of Prussia. Linen and cotton goods and porcelain are manufactured in this great centre of inland trade.*

Breslau (population 240,000), *the capital of the mining district of Silesia, is the second town of the kingdom.*

Cologne is famous for its cathedral and for the manufacture of Eau de Cologne.

LESSON XIX.

GERMANY.—THE NORTHERN AND SOUTHERN STATES.

THERE are altogether twenty-two States forming the confederation of *north* Germany, Prussia, Saxony, Hesse, Mecklenburg, and Oldenburg being the principal; the Grand Duchy of Saxe-Weimar, the Duchies of Brunswick and Anhalt come next in extent and influence, the rest being minor principalities, and the so-called Free Cities of Hamburg, Lübeck, and Bremen. Prussia, as already described, is the leading State, its King being Emperor of all Germany.

Saxony. This kingdom was raised to its royal rank in 1806 by Napoleon, for adherence to whose cause the sovereign was in 1815, upon Napoleon's downfall, deprived of a large portion of his dominions, which were ceded to Prussia. Both physically and industrially the Saxon State is one of the most characteristic of Germany. Its surface is mountainous, the southern parts being covered by the Erzgebirge, with beautiful and fertile slopes and valleys, draining into the Elbe. The patient industry of the people has brought every portion of the soil under culture, even where not naturally fertile; and the working of the mines has been carried on with the highest degree of art in mountain places where crops of grain could not be raised. Of the minerals, copper, and lead mixed with silver, tin, iron, cobalt, zinc, bismuth, and arsenic are the principal. Manufactures of linen, cotton, wool, and silk are important. Saxony wool makes fine cloth, which is not exceeded by the produce of any other pastoral country. The orchards also are a never-failing source of wealth. The earthenware made supplies the wants of a large part of the empire, while the porcelain of the royal potteries of Dresden, the capital of the State, reaches the highest perfection of art in material, form, and colouring.

The rich and varied resources of Saxony are made still more available by good roads and railways to render transit easy, and by the facilities for interchange at the Leipzig great fairs. As in Prussia, schools abound for the young, and an excellent system of teaching and training has given the State a good claim to be regarded as the best educated in Europe. The population of Saxony reaches 2¼ millions.

Mecklenburg is divided into the two Grand Duchies of Mecklenburg-Schwerin and Mecklenburg-Strelitz, each under its own Grand Duke; but the last has only one-sixth the area of the first. The princes of these States are among the oldest of the reigning families of the Continent; and they retain, but little altered, many feudal manners and customs brought down from the Middle Ages.

The country consists of a sandy plain, with a few low hills towards the middle; yet it is fertile, and provides fine pasturage for cattle, horses suitable for troopers, and corn enough for export. Forests also furnish a large supply of timber. Schwerin is the capital of one Grand Duchy, and Strelitz of the other. The number of people over whom the Grand Dukes rule amounts to rather more than half a million souls.

Oldenburg, with a capital of the same name, has an area of 2,500 square miles, and a population of less than a quarter of a million. It is a small ducal State, till recently independent, and is embraced on every side by Hanover except the north, which is washed by the North Sea. Before the dream of German unity became a fact under the Imperial power of the King of Prussia the Grand Dukes of Oldenburg and Mecklenburg ruled with almost despotic control, and their States appeared neither to advance nor recede in wealth and population from one age to another. Now, however, they feel the impulse of the empire, and progress becomes apparent. The estuary of the Weser is the outlet for its small commerce. Only the banks of the rivers and of their affluents are fruitful, the rest of the plain being low, sandy, and unproductive. Forests which once prevailed have gradually disappeared, and the land has been diverted to tillage. Corn, hemp, flax, rape, potatoes, pulse, and hops are the chief agricultural produce, while ᐧe dairy farms furnish a good deal of butter and cheese, and many horses, cattle, sheep, and pigs are raised. Industrial resources, however, in every form are insignificant compared with those of the other States.

The *southern* States comprise the two kingdoms of Bavaria and Würtemberg, the Grand Duchy of Baden, the States of Alsace and Lorraine, restored to Germany after the war of 1871, and the principality of Lichtenstein, the smallest of all the States of the empire, 50 square miles in area, with a population of 7,000 subjects.

Bavaria ranks only second to Prussia, occupying about a fourth of the extent of territory, peopled in the same proportion. Originally the prince of this province ruled over merely a small district west of the Rhine called the Palatinate. Bavaria, however, received large accessions in 1806 from Napoleon, by whom it was erected into a kingdom, for aid rendered in war against Austria. Bavaria proper spreads south of the Danube, where it rises into a plateau. Its resources are iron, coal, salt, and superior porcelain clay. There is good pasturage, and the soil produces grain, hemp, flax, tobacco, potatoes, hops, and fruit. In some places it is warm enough for maize and rice and vine culture. Bavarian wines are much esteemed. Breweries and distilleries produce vast quantities of beer and ardent spirits from home-grown barley. Considering the natural advantages of the country, no branch of industry is so forward as it might be; but with the better roads, canals, and railways, which have lately been made to connect its chief towns, much improvement begins to be visible. Weaving, hardware, metal work, and porcelain employ many hands; and exports are made of grain, timber, wine, cattle, sheep, hogs, horses, salt, leather, butter, wool, hops, fruit, beer, toys, glass, and jewellery. In the days of the Hanse the Bavarian towns of Nuremberg (or Nürnberg) and Augsburg were so wealthy that their merchant princes could support large armies; and from these traders some of the present noble houses of the empire trace their descent. Munich, the capital, is the great corn depôt of the kingdom.

Würtemberg, the fourth kingdom of the confederation, lies between Bavaria and Baden. It is a hilly and rugged rather than a mountainous region, watered by the Neckar and the Danube, which constitute also the channels of commerce, chiefly for farm produce. The wines of the fertile valley of the Neckar are esteemed as good. Mining for coal, iron, silver, copper, and lead is carried on. Salt is obtained from brine springs, and building stone, slate, gypsum, and nitre are amongst the other natural resources. The manufactures are more numerous than extensive. Besides woven fabrics, small articles—such as toys, wooden clocks, and jewellery—together with paper, are made for export; but the country is capable of greater advances in every branch of industry than it has yet reached. Stuttgart, the capital, lying in a beautiful valley amidst vineyards, is the centre of its manufactures and trade.

Baden, the paradise of Germany, is a long narrow strip of country stretching for 300 miles along the Rhine, and traversed over a third of its surface by the mountains of the Black Forest.

The wealth of the people has its source in the forests, the timber from which is sent down the Rhine in vast rafts. The numerous streams serve as waterways for trade, besides being the means of fertilising the soil. Agriculture is more studied here than in the other States; vineyards flourish and produce grapes, of which both red and white wines of the best quality are made, and fruits are abundant.

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in'-flu-ence
ad-her'-ence
ex'-cel-lent
af'-flu-ents
ar'-sen-ic
pot'-ter-ies
reign'-ing
con'-sti-tute
a-vail'-a-ble
in-de-pend'-ent
ap-par'-ent
in-sig-nĭ'-fic-ant

Prin-cip-al'-i-ty, a small state with a prince for its ruler.

Ced'-ed, handed over or given up to.

Des-pot'-ic, having absolute power.

The chief of the north German States and Kingdoms are Prussia and Saxony, the Grand Duchies of Hesse, Mecklenburg, and Oldenburg, and the Duchy of Brunswick.

Saxony is noted for its minerals and its wool. Dresden, famous for its "Dresden china" and fine art treasures, and Leipzig noted for its great book fair, are the chief towns.

Bavaria, Würtemberg, Baden, Reichsland (Alsace and Lorraine), and Lichtenstein are the south German States.

Munich, Nuremberg, and Augsburg are the chief towns of Bavaria.

Stuttgart is the capital of Würtemberg, and Carlsruhe of Baden. Baden-Baden is a famous watering-place in the duchy of the same name, Strasburg in Alsace is strongly fortified,

AUSTRIA.

LESSON XX.

AUSTRIA.—PHYSICAL FEATURES.

IF we could look down on this country from a balloon at a great height up in the air, we should see a vast region covered over three-fourths of its surface with mountains, many of them having snow-capped peaks, and their slopes clad with dense forests. We should also see wide table-lands seemingly lifted up by the swelling mountains around; vast plains and river-valleys, grandest of all, that of the majestic river Danube, which courses eastward through the central parts, and drains into its great bed the waters of hundreds of lesser streams.

Austria proper—that is, old Austria—is small in area. Its German name is Oester-reich, that is, the eastern dominion. It formed a bulwark on the east against the inroads of the Hungarians into Germany. It consists of two divisions—Upper and Lower—and is now known as the Arch-duchy of Austria, being only a single province among a large number of others which have been added at various dates. Through the heart of the province runs the upper part of the river Danube, towards

THE DANUBE.

which for many miles the land slopes on each side. This slope of the ground secures good drainage, and gives facilities for carrying the country's produce to the markets and places of resort on the river's banks.

The soil is well tilled, and the landscape affords a rich and beautiful prospect. The numerous towns and villages on the Danube, the varied woods skirting the hills on either side, the monasteries, castles, spires, farmhouses, and villages peeping out here and there from among the trees, the fine river, with its swiftly gliding waters appearing and disappearing amid its wooded islands—the whole scene being girdled round by varied mountains—furnish pictures that strike every stranger and entitle the province to rank among the most charming countries of the world.

This country has added so many others to its borders that the empire is now the third largest of the European States, and covers an area of 250,000 square miles. These added countries (Bohemia, Galicia, Hungary, Transylvania, Dalmatia, &c.) have each some special feature. The region to the north-west, called Bohemia, is almost encircled by mountains—those of the Erzgebirge and the Riesengebirge on the north, the Böhmer Wald (Bohemian forest) on the west, and the Moravian Mountains (dividing Bohemia from Moravia) on the east. This province, the bed of a former lake, measuring 20,000 square miles, is a table-land which appears as though it had been lifted up by the ring of mountains as they slowly rose around.

The western side of the country is a marvel of mountain heights, including the Tyrol, the Rhætian, Noric, Dinaric, Carnic, and Julian Alps, while separate provinces occupy some of the valleys between.

Mountainous as is the character of the country in general, there are some immense plains, although these lower spaces have mountainous spurs stretching into the interior in many places. Hungary, the largest province, consists of two great and almost treeless plains—one of them 36,000 square miles in area—into which mountains stretch in several parts as though they were arms pushed forward to save the plains from sinking. Galicia, too (on the north-east), is a great table-land standing 8,000 feet above the level of the sea. Between the northern plain of Hungary and the table-land of Galicia, a range of mountains called the Carpathians runs as a watershed, stretching eastward from Austria proper across the country to the eastern extremity of Hungary, and then curling back round the province of Transylvania,* a total distance of 1,100 miles. This range is from 100 to 200 miles in width.

Compared with the large area of the country the seaboard is very limited, consisting of only 700 miles along the coast of the Adriatic. This seaboard portion is the peninsula of Istria, and a narrow strip of shore, the province of Dalmatia, divided by a mountain range from Bosnia. The latter country does not form part of Austria, but is occupied and controlled by that Power, owing to an arrangement arising out of the recent war with Turkey, to which it was formerly subject. The inland boundaries of Austria are very generally marked by mountains. Galicia (at the north-east, and beyond the Carpathians) is the only part not protected by great heights; and this province lies open to Russia. Austria is enclosed by Turkey on the south, Russia on the east and north, Germany on the north and north-west, Switzerland on the west, and Italy on the south-west.

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* So named from its being beyond (on the eastern side of) Hungary—"Trans" meaning beyond, and "silva" a wood—across the woodland country.

There are four great systems of drainage—that is, there are four seas into which the rivers flow; the Black Sea, in the south-east, receiving the waters of the rivers Danube and Dniester; the Adriatic (in the south), into which flow the rivers Po and Adige; the Baltic, in the north, beyond southern Russia, receiving the Vistula; and the German Ocean, on the north-west, beyond Germany, through which country runs the Elbe. Lakes are numerous among the mountain groups. In Carniola, south-west, the Lake of Zirkintz sometimes disappears for years, without any known cause, so that people may, at different periods, fish, hunt, and gather a harvest on the same spot. There are many lakes, glaciers, and chasms in the central parts of the Carpathians, and numerous lakes or inland seas scattered in different parts of the Austrian dominions. Among the Bohemian heights alone there are upwards of 20,000 lakes, measuring 190,000 acres in all; and many hundreds of lagoons or swamps along the coast of the Adriatic.

Although there is need for better means of transit across the great plains, there are many good roads in some parts of Austria. From Vienna, the capital, in Austria proper, great roads extend towards all parts of the empire, and upwards of 100 mountain passes have been made available for traffic. But many more roads are required to give sufficient facilities for an empire having 800 cities and towns, and 74,000 villages and market-places.

Forests cover one-half of the empire, and abound with the finest timber trees in Europe. Yet, so far are some of the towns and villages in the plains from the wooded hills, that in many parts of Hungary the people are obliged to use manure for fuel because they cannot obtain either wood or coal. The soil on the plains is mostly fertile, and so productive that it yields crops one generation after another without the use of manure. And the mountains are equally rich, but the produce consists of timber on the slopes and metals and precious stones beneath the surface. The woods abound in wild animals, such as the black bear, the fox, and the lynx; herds of swine feed on the acorns which fall from the oak-trees, and wild deer and horses roam freely over the plains.

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ma-jést'-ic
suf-fic'-ed
mon'-as-ter-ies
en-cir'-cled
oc'-cu-pying
fa-cil'-i-ties

The principal subdivisions of Austria are Austria Proper, Hungary, Galicia, Bohemia, Moravia, Transylvania, and the Tyrol. The south-west consists of a number of duchies, of which Styria, Carniola, Carinthia, and Salzburg are the chief.

Austria is a very mountainous country. The Carpathian Mountains form the northern boundary of Hungary and the eastern and southern boundary of Transylvania. In the west and south-west numerous branches form the great Alpine system—the Tyrolese or Rhætian, the Noric, Dinaric, Carnic, and Julian Alps—spread over the country. Bohemia has the Böhmer Wald Mountains on the south-west, the Erzgebirge on the north-west, the Riesengebirge on the north-east, and the Moravian range on the south-east.

The chief rivers, none of which, however, are entirely in Austria, are the Danube, Elbe, Vistula, and Dniester.

LESSON XXI.

AUSTRIA.—CLIMATE AND NATURAL RESOURCES.

AUSTRIA enjoys a moderately warm and healthy climate, varying, however, according to height of surface, even in places near to each other and in the same parallels of latitude. In tracing the conditions of its climate, we must leave out the influences of the sea, not only on account of the distance of the country inland, but also because of the mountain borders which arrest and divert the sea breezes. Before the moist currents from the Atlantic reach Austria they have parted with their burden of vapours, which pour down in rain on the western slopes of the Alps, and as they blow over the provinces of the empire they are dry. The prevalent north-easterly currents sweep over vast expanses of land before being checked by the Carpathians on the north and east, so that they also are dry winds; and the effects of the air from the narrow Adriatic in the south are too unimportant to be taken into account. The rainfall of Austria is in consequence below the average, though greater on the mountains than on the plains; and Hungary, by far the largest division of the empire, though swampy in many parts, is subject at times to excessive drought.

With many local exceptions, we may divide Austria into three belts or zones — northern, middle, and southern. The first of these bears a striking resemblance to the southern and western region of the counties of England, and the provinces of France along the English Channel. The mean annual temperature is the same, but the extremes of heat in summer and cold in winter are much greater.

The *northern* zone includes nearly the whole of Bohemia in the north-west, and the higher parts of Moravia, Hungary, and Galicia in the north-east. The *middle* zone is twice the extent of the northern, and is the region of the vine and maize. The *southern* zone is the smallest of the three, and includes Slavonia, Croatia, and Dalmatia, a region without any severe winter, the cold not being great and seldom lasting long.

Vertical zones—that is, belts of land at various levels above the sea—are distinguished by their vegetation as clearly as those of latitude. Thus the Alpine heights and the Carpathians endure the rigour of a northern winter, while at their feet the prolific soil is beautified with luxuriant vegetation.

Forests, likewise, by intercepting the heat of the sun and retaining moisture for evaporation, render their neighbourhood cooler than the open plains. Thus the climate of Austria is more extreme, and presents more local differences than that of the western States of Europe which are open to the Atlantic; yet it offers counterparts over the wide range of the empire to the climates of every division of Europe.

The northern zone is the region of grain, the bulk of the crops being wheat, barley, oats, and rye; the centre is that of the vine and maize, to which the south adds rice, the olive, and the mulberry. Other resources of the northern belt, from Bohemia across to Galicia, are potatoes, hemp, flax, and hops, with extensive pastures equal to those of Saxony and Silesia in Germany, and on which browse countless sheep, cattle, and horses. In Hungary alone the sheep count by millions, and though they pass the winter in the open air, their fleece is not much inferior to Saxony wool. Vast herds of horned cattle roam shelterless over the natural grazing grounds, together with choice breeds of horses—small, but active and fleet, and well suited both for cavalry and draught purposes.

A VOLCANIC ROCK, SPIRLINGSTEIN, BOHEMIA.

Oak forests provide acorns for innumerable swine. These form the chief animal food of the country, but so numerous are they that the surplus for export is only limited by the means of transport

Land birds and water-fowl contribute to the natural resources of Austria by their feathers and flesh. Pelicans and immense flocks of ducks frequent the river banks. Wherever also it is warm enough for the mulberry-tree to flourish, the silk-worm is reared to advantage.

A country comprising so large a part of the European mountain system can hardly fail to be rich in minerals. Indeed, metals of every kind are widely diffused and very abundant. Iron is quarried from the mountains of Carinthia in the south-west, which are solid masses of carbonate of iron. Iron ores are also plentiful in Bohemia, Upper Austria, and Hungary. Copper, lead, antimony, cobalt, tin, and zinc abound. More gold and silver have been obtained than in any other part of Europe. The rich deposits of gold are, however, now but little wrought. The mines of Idria in Carniola, only second in richness to that of Almada in Spain, furnish quicksilver, both native and in the form of cinnabar, in sufficient quantities to supply the mirror makers of Vienna with the silvering they need in their art.

As in England, coal is found in large fields wherever iron ore prevails; and though it is not of good quality, it is near the surface, and so easily worked that there is but little occasion for economy in its use. Still the coal-beds have not until late years been drawn upon very much, under the belief that wood, of which the supply is inexhaustible, is better for smelting the ore. Mines of rock-salt traverse the country from the Tyrol to Moldavia. Those in Galicia, the largest in Europe, have been wrought for centuries, and could furnish enough for the consumption of the whole world for ages to come. In some of the larger mines there are vast halls and galleries, and even houses and churches to accommodate the workpeople and their families.

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par'-al-lel
in'-flu-ence
ap-par'-ent
pro-li'-fic
re-sem'-blance
ex-ces'-sive
mul'-ber-ry
con-sump'-tion
tem'-per-a-ture
lux-u'-ri-ant
e-vă'-por-a-tion
in-ter-cept'-ing

The climate of Austria is dry and healthy, the temperature, though varying, being on the whole moderately warm.

The chief vegetable productions of the country are corn, timber, potatoes, grapes, flax, hemp, and hops.

The mineral riches are great, including gold, silver, copper, iron, coal, quicksilver, lead, tin, salt, &c. Swine, cattle, sheep, and horses are exceedingly numerous.

LESSON XXII.

AUSTRIA.—HISTORY.—GOVERNMENT.—RACE.

THE nucleus of the Austrian Empire is the small province of Lower Austria, in which the capital, Vienna, stands, and which dates back to Charlemagne, who gave it the name of *Œster-reich*, or east kingdom, from its being the limit in that direction of his German dominions. Upper Austria was added in 1156; and rapid accessions of territory by marriage, heirship, and treaty, rather than conquest, between that date and 1438, made Austria the most powerful of the German States.

Its duke was chosen Emperor of Germany, which title his successors kept till the year 1806. Bohemia (northward) and Hungary (eastward) were acquired in 1526, the crown of the last kingdom, which had previously been elective, being afterwards made hereditary. Galicia (north of the Carpathians) was taken from Poland at the partition of that unfortunate country, and confirmed to Austria by the treaty of Vienna on the conclusion of peace in 1815. The narrow tract extending along the whole of the south from Croatia to Transylvania, and called the Military Frontier, was the reward of the success in arms of Prince Eugene against the Turks, when that race was more powerful than it now is. The inhabitants have ever since held their lands on the tenure of military service, being obliged to maintain watch-houses and garrisons for protection against the Turks, and to serve in the field in lieu of paying taxes and rents.

When the so-called Holy Roman (really German) Empire was dissolved by Napoleon in 1806, Francis II. renounced the title of Emperor of Germany, and assumed that of Emperor of Austria.

In 1866 war with Prussia, in which Austria was worsted, left the Emperor no choice but to cede his Italian provinces of Lombardy and Venetia to Italy, and to withdraw from the Germanic Confederation. Since 1866 Austria has ceased to be a German Power, though the States, by right of which it had for several centuries claimed the leadership, are, to a great extent, German in race and language.

The Imperial Government was for many ages a despotism in every province except in Hungary and Transylvania, which possessed their own laws and administration. It is now a limited monarchy, but the Emperor still exercises more personal power than does the sovereign of England. There is an Imperial Council, and there are also Provincial Diets, or local parliaments, for the German and Polish States. In Hungary the Emperor has the title of King, and rules with the aid of a Parliament. Hungary, with its own Parliament and executive, transacting the business of the State at its own capital, Buda-Pesth, has but little connection with the other States beyond that of the Emperor being its King. The weakness of Austria has arisen from the separate interests of many States of different races, language, and habits, which it has been the policy of the Government to keep feeble, in order the more easily to quell revolt. The Germans shared with the rest of their race the desire for a united fatherland. Hungary strove time after time for independence, and in 1848 would have succeeded in dismembering the Empire but for Russian troops, which poured in to assist Austria. During the present Emperor's reign greater freedom has been granted; education has been promoted; harsh rules that repressed commercial intercourse have been removed; the industry of the people has been more encouraged; and wealth and population have increased.

The main political divisions of the empire, according to their former nationalities and the languages still spoken, are German, Slavonic, and Hungarian. The German States comprise Austria Proper (Upper and Lower), Salzburg, Tyrol, Styria, Illyria, Bohemia, and Moravia, subdivided into eleven Governments. The Slavonic State of Galicia is subdivided into two Governments; and the Hungarian States of Hungary, Transylvania, Military Frontier, and Dalmatia are subdivided into seven Governments. The Hungarian States exceed the German both in area and population, the number of inhabitants amounting to about 15,000,000 in the first and 13,000,000 in the second. The Slavonic States contain a population of 5,000,000. A mere list of the races speaking different languages with many dialects of each, and marked by all degrees of civilisation, from the rude and wild troopers of the Military

THE CATHEDRAL OF GRAN, HUNGARY.

Frontier to the quiet and joyous citizens of Vienna, would show the difficulty that besets any Austrian ruler in his efforts to blend his people in sympathy with each other and in loyalty to the throne. Slavonians, Germans, Italians, Magyars, Jews, Tartars, Gipsies, Armenians, Greeks, Illyrians, stand in the order of their numbers, and must again be divided, in most cases, into distinct tribes, speaking dialects which form as great a bar to intercourse as different languages.

People of Slavonic race, akin to Russians, form more than half the population of Austria, and are found more or less in every province, with distinctions between themselves as well marked as those which separate them from other races. Germans occupy Austria Proper, but are only a minority in other so-called German provinces, and are dispersed more or less through the empire. The Græco-Latin or Italian race is numerous in the Tyrol and the Adriatic States. Magyars (a race of eastern origin, distantly akin to the Turks) are dominant in Hungary, and numerous in Transylvania.

Including the Turkish districts in the south, over which Austria has within the last few years assumed a form of protectorate, the subjects of the Emperor, about 36,000,000 in all, constitute the strangest cluster of diverse nationalities and speech that the wisdom of a ruler was ever called upon to control.

dom-in'-i-on
heir'-ship
worst'-ed
bus'-i-ness
di'-a-lect
dom'-in-ant
ac-ces'-sion
ter'-ri-to-ry
suc-cess'-ors
de-pend'-ence
sym'-pa-thy
pro-tect'-or-ate
he-red'-i-ta-ry
des'-pot-ism
so'-ve-reign
ex-ĕ'-cut-ive
en-cour'-ag-ed
na-tion-al'-i-ties

Nu'-cle-us, the beginning and vital centre.

Austria contains a population of about 36,000,000, *consisting of many nationalities—Slavonians, Germans, Italians, Magyars, Jews, and many others.*

The Government of Austria is a limited monarchy. There are Provincial Diets, or local parliaments, and also an Imperial Council. The Emperor is King of Hungary, and rules with the aid of Upper and Lower Houses of Parliament, which sit at Buda-Pesth, the capital of the kingdom.

LESSON XXIII.

AUSTRIA.—AGRICULTURE.—MANUFACTURES.—COMMERCE.

AUSTRIA is favoured with a productive soil, besides varied and endless stores of minerals, which only need the labour, skill, and intelligence of man to enrich the country with every material comfort and blessing. But the great aim of industry, beyond the supply of our immediate wants, is to obtain a surplus of produce which we can exchange for necessaries and luxuries found in other lands. In other words, without commerce industry is kept down within narrow limits. In this respect Austria enjoys few advantages. She has a limited coast, and even that is walled off from her inland provinces by mountains, while the Danube (along which the produce of the country can be easily conveyed) flows eastward, away from the marts of trade, and its mouths belong to a rival Power.

These facts point out the course which such a country should pursue. Inland trade should be encouraged by the greatest freedom, and should bind the various States to each other by the ties of mutual profit. Means of easy communication, good roads, canals, and railways, should cheapen the carriage of goods between town and town, and through the mountain passes to the sea. Husbandry and manufactures would then receive a stimulus to improve both the quality and the quantity of their produce.

So far from this course having been followed, the history of Austrian industry, in its present state, dates back very few years, and indeed, in any national sense, can hardly be said to have existed at all before the Peace of 1815. From this date attention was given to husbandry and the manufactures founded thereon. Capital, turned from the waste of war, was employed by the landowners of Bohemia and Moravia in agriculture and sheep rearing; and the improvement showed itself in such excellent wool, that the cloths of these provinces soon rivalled those of Saxony. But the system of exclusion was carried to such an extreme, that every province was cut off from all the rest by frontier duties, thus taking money out of one pocket to put it into the other, or charging a toll at every shopdoor in order to benefit the tradesman. The fabrics of other countries were forbidden to enter, in order that native-made goods might alone be used. Half the labourers of Bohemia, Moravia, and Austria were taken away from the soil to engage in handicrafts, for which the many had to pay more than they would have had to pay for better articles of foreign make. The progress of Austria has in consequence been very slow, and even now, with greater freedom, is insignificant compared with its vast natural resources.

Austria has about the same proportion as the United Kingdom of unproductive land, and of land under tillage; three times the proportion of garden, orchard, and vines, five times that of forest, but less than half the proportion of pasture. The produce, however, of arable land of similar character is a third less in Austria than in England, owing to the backwardness of the system of husbandry. No country has a fairer field for agricultural wealth. Lower Austria, Moravia, and Galicia have rich soil, watered by many streams; and even the unproductive plains of Hungary and Transylvania need but proper draining, irrigation, and tillage to produce abundant crops. The north of Austria is not warm enough for vine culture except in sheltered spots; but in Hungary and Lower Austria much wine is made and is a common, cheap beverage.

Forests furnish timber of every kind for shipbuilding, houses, furniture, and fuel, and secondary products in oak bark, potash, turpentine, resin, pitch, tar, charcoal, and gall nuts. The felling of the trees, and the further industries connected therewith, provide subsistence for many of the people in every part of the empire.

The *textile manufactures* dependent upon husbandry, such as the spinning and weaving of the fibres of flax and hemp, of silk, and of wool, differ from those of England. In our country the minute division of labour confines them to certain localities convenient for steam machinery and huge mills, while in every province of Austria hand-labour in the peasant's cottages, as in England a century ago, maintains its ground. The swarms of animals roaming over the prairie-like plains supply hundreds of thousands of live cattle for export to England and France, and millions for home consumption, as well as hides, tallow, skins, leather, and furs. There are many tanneries, especially in Hungary, and the quantity of leather produced is large, though almost entirely for home use. Silk spinning and weaving have been lessened by the transference to Italy of Lombardy and Venetia, where these arts are mainly carried on.

Mining, the third great branch of industry, of which iron is the representative, has not made the same progress of late years as husbandry and the textile manufactures, owing to the restrictions upon the use of coal, and the dearness of wood fuel for smelting; yet there are but few districts r towns without workers in metals.

The system of protecting native industry was carried to the most absurd lengths in Austria. Duties of 20s. a pound on silk and 12s. on linens, and similar penalties on coffee, cane-sugar, and other foreign produce, were enforced. Its folly may be seen in reference to the cane-sugar, which was cheap and excellent, but debarred from use in order to encourage the cultivation of the dearer and inferior beet-sugar. The country still remains hampered by monopolies and tolls; and the Government retains in its own hands the revenue from salt, tobacco, gunpowder, and other articles. How many enjoyments the people may have been deprived of for generations must be judged by the effect produced of more moderate though still heavy tariffs. Between 1851 and 1870 the imports increased from a value of 16 millions to 42 millions, and the exports from nearly 14 to 40 millions sterling.

stim′-u-lus
ri′-val-led
ex-clu′-sion
prai′-rie
rĕ′-ven-ue
in-sig-ni′-fic-ant
tur′-pen-tine
sub-sist′-ence
de-pend′-ent
rĕ′-fer-ence
in-tel′-li-gence
nĕ′-ces-sa-ries
con-ven′-i-ent
gĕ-ne-ra′-tions
re-stric′-tions

The occupations of the people of Austria are mainly agricultural, pastoral, and mining. Agriculture employs by far the largest share of the population.

The manufactures are not extensive. They consist of spinning and weaving flax, hemp, and silk, and the manufacture of leather.

Quantities of wine are made in Hungary and Lower Austria.

CHAPTER XXIV.

AUSTRIA.—COMMERCE—CHIEF TOWNS.

TRADE is so much bound up with productive labour, that they act and react upon each other. If production is unfettered, the desire is created to exchange the surplus produce of the soil and also of the loom for the necessaries and comforts of life obtained elsewhere; and if trade is free it stimulates labour to make this surplus large, by adopting every improvement that skill and intelligence can contrive. This was not possible in Austria while every industry was "protected," every town privileged, and every State had its frontier dues. Such a complex system, under the idea of benefiting the country, seemed rather intended to prevent the people from dealing with each other, or with the rest of the world. From its position, surrounded by other States, and with a coast-line barely enough to give it more than one good port, inland trade was vital to prosperity. The empire would have been enriched by cheap and direct transit through Germany, sharing the advantages of the Zollverein; but the jealousy of Prussia and the pride of Austria stood in the way, and only a limited share in the privileges of the union have been enjoyed.

Since wiser counsels have influenced the Government, the mercantile system of Austria has been greatly developed. It was one of the first countries to construct railways. Its railway system, though as yet not to be compared with that of England, connects the chief towns with the ports, and promotes both home and foreign trade. The difference between the two countries in the means of intercourse is to be seen in the fact that while in England there is no marked difference in the cost of food between London and the rural districts, in Austria it varies widely in price, and is very dear in Vienna. Many new roads have been formed; some over the Tyrolese Alps of a magnificent character, with massive stone work (where avalanches occur), which hurl the ice blocks over into the valleys, instead of letting them bar the road. Excellent macadamised roads run across Galicia. A steamboat service has been placed upon the Danube, and many of the rocks which impeded the navigation have been removed by blasting.

Beyond these enlightened measures, Austria has entered into commercial treaties with most of the States of Europe to their mutual advantage, and particularly to her own. So great indeed have been the strides in trade made by the empire, that the years immediately following the loss of Venice, one of the most flourishing provinces, were the best in her industrial history, and the mercantile loss was rapidly recovered. As soon as restrictions upon free intercourse between the provinces were removed, smuggling, which had always gone on to an enormous extent, disappeared.

The trade in timber and forest products increased in a manifold degree, and the fat cattle trade assumed such dimensions that a service of trains to the North German ports, and fine vessels thence, have been maintained for the British traffic alone. A capital exceeding 40 millions sterling is invested in this one branch of industry.

The capitals of each province are the chief seats of Austrian industry; Vienna being both the industrial centre of the empire, and the national market for the chief manufactures. Three fairs are held every year. A canal connects the city with the Danube, and steamers ply between the two capitals of Austria and Turkey. Vienna is noted for its articles of luxury, similar in character and almost in value to those which give fame to Paris; also for gold and silver lace, watches, mirrors, and innumerable small wares, including lucifer matches, which find their way over all the world.

Buda-Pesth, which is one town though situated on the two banks of the Danube (the part on one side being formerly called "Buda," and that on the other "Pesth"), is the emporium of Hungary. Grain, mineral produce, and textile manufactures reach the capital from every part of the kingdom, and are distributed thence through the empire and the continent, while vast rafts of timber are floated down the Danube to be eventually shipped to distant ports. The principal trade is in live cattle; and then follow in value corn, timber, bacco, hides, wine, and wool.

Prague is the prosperous capital of Bohemia, manufacturing linen and woollen, porcelain, leather and glass. The last, though not of superior quality, is of artistic beauty and colour, and of such wonderful cheapness that it is sought in distant lands, even by the poor, to adorn their homes. Prague is well placed for trade with Germany and Austria, reaching the first by the Elbe and by railway, and being in communication with the other Austrian States, both by road and rail.

A STREET IN MODERN PRAGUE.

Cracow and Lemberg, connected by railway, are the busiest industrial towns of Galicia. As they are situated in an agricultural district, their manufactures are allied to the soil, and consist of soap, candles, and vinegar, farm implements, machinery, and steam-engines. Near these towns are the largest salt mines in the world, those of Wieliczka, (pronounced *Veelitscha*), sometimes called the Cracow mines.

The Austrian seaports are Trieste in Illyria, and Fiume. Trieste is the principal port of the empire, and the place of departure for the vessels of the Austrian Lloyd's Steam Packet Company trading with every Mediterranean port and with England. Fiume is the outlet for the kingdom of Hungary, whence it exports its natural produce, which is added to by the timber and minerals of Bosnia.* The rocky islands that gird the Dalmatian coast afford harbourage for vessels of which Gravosa is the finest, but Ragusa the busiest, port; the first has manufactures of silk and woollens, the second manufactures soap and has a ship-building trade.

Pola is not a commercial, but a naval port, having an anchorage, protected from every wind, sufficient for all the navies of the world.

stim'-u-lates
mer'-can-tile
com-mer'-ci-al
ar-tist'-ic
un-fet'-ter-ed
ă'-va-lan-ches
lu'-ci-fer
im'-ple-ments
in-tel'-li-gence
prĭ'-vi-leged
mag-ni'-fic-ent
an'-chor-age

"Mac-ad'-am-ised roads," roads formed of small broken stones, so as to form a smooth, hard surface. So called from MacAdam, the inventor.

Smug'-gling, the offence of passing goods without paying the custom or excise dues.

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* Now under Austrian control, although not an integral part of the empire.

The chief towns of Austria are Vienna, the capital, and the industrial centre of the empire; Buda-Pesth, on the Danube, the capital of Hungary, the seat of a great inland trade; Prague, the capital of Bohemia, and the centre of the trade of that kingdom; Brünn, noted for its woollen trade; and Lemberg and Cracow, in Galicia. The latter was the capital of Poland before its dismemberment.

The largest salt mines in the world are at Wieliczka, near Cracow, in Poland.

The chief ports of the empire are Trieste and Fiume.

RUSSIA.

LESSON XXV.

RUSSIA.—PHYSICAL FEATURES.

RUSSIA lies partly in Europe and partly in Asia. The long range of mountains called the Urals stretches southward from the Arctic Ocean about 1,200 miles, and divides the country into the European and Asiatic portions. That part of Russia which lies westward of the Urals forms more than half of the whole of Europe, and measures more than 2,000,000 square miles.

The whole surface of European Russia may be considered as one extensive plain. If the Urals, on the east of Europe, and a mountain district in the Crimea pointing into the Black Sea in the south, be excepted, there is not in this immense extent of country an eminence rising more than 500 feet from its base, or 1,100 feet above the level of the sea. There is a rising ground a little to the north of the central portion, which is just high enough to form a watershed for the great plain, so as to turn the rivers north and south.

The water boundaries of Russia are the Arctic Ocean on the north, the Baltic on the west, the Euxine or Black Sea with the Sea of Azov on the south, and the Caspian on the south-east. Only in the south-west is the country separated by treaty boundaries from the neighbouring States (those of Austria and Prussia).

So slight is the elevation of the watersheds that in travelling across the country we should never discover rising ground but for the rivers being turned—some northward and some southward. The chief water-parting is known as the Valdai Hills, a round-backed cluster commonly described as being of a "dome-like" form. This group of hills may be compared to a knuckle of land, which turns the rivers in three directions—some to the north, into the Arctic Ocean; some to the south, into the Black Sea and the Caspian; and others to the north-west, into the Baltic.

The basin of the White Sea (a gulf of the Arctic Ocean) forms the northern region, and is partly uncultivated, and partly covered with pine forests. The north-west basin sloping towards the Baltic is a land of lakes, and contains the largest freshwater lakes in Europe. These great lakes, chief among which are those of Ladoga and Onega, discharge their waters by the river Neva into the Gulf of Finland, and spread their surplus waters far and wide, forming immense swamps on the lower levels. The southern tract, by far the largest, is varied in character, having an immense desert called the Steppes, measuring 336,000 square miles, in addition to a vast district of fertile land. Through this low plain flows the river Volga, a slow but long river (the largest in Europe), bordering for a long distance the Great Steppes, and at last creeping as though with a great effort by a vast number of mouths into the low-lying Caspian Sea.

The Caspian is 84 feet below the level of the Black Sea, or, in other words, the mouth of the Volga, opening into the Caspian, is 84 feet lower than the mouth of the Don, which opens into the Black Sea. But a depression of surface by only 10 feet would inundate an immense area of land; and it is certain that ages ago the Caspian must have spread 1,000 miles along the lower basin of the Volga, extending east and west from the Sea of Azov to that of Aral, thus forming a Mediterranean with which the present sea of that name cannot compare.

The river systems draining into the Black Sea flow through higher lands, along deep channels, rather than river valleys. The chief of the Black Sea rivers are the Don, Dnieper, and Dniester.

The elevation of the Valdaï Hills, giving off so many navigable streams, led Peter the Great to connect the head waters of the chief river systems by means of canals, a work which has been carried on by his successors, until the four great seas, the Arctic, Baltic, Black, and Caspian, are now placed in communication with each other, so that merchandise can be sent from Astrakhan to Moscow or St. Petersburg by one continuous water-route.

The three divisions of European Russia formed by its watersheds differ in their physical features, their resources, and, within certain limits, in climate; though the climate of the whole country is of the excessive or continental type. The basin of the White Sea is cold and barren, scarcely any part being cultivated, though forests exist in the south. From the borders of Prussia to the Gulf of Finland and the lake region the soil is fairly fertile, with some spots of rich land and many sandy tracts. Crops, however, cannot be depended upon beyond the sixty-second degree of latitude, and cultivation ceases at the sixty-fifth.

The third or southern slope may be subdivided into three distinct regions — Central Russia, and the Eastern and Western Steppes. Central Russia extends through 11° of latitude, and from Western Poland eastward to the banks of the Volga, increasing in fertility as we proceed southwards. Rye is the chief crop; but excellent wheat, enough to make this region the granary of Europe, is also raised. The soil is a rich, deep, black, vegetable deposit, covering an area as large as France and Austria together, and capable of producing rich crops of the finest wheat for many years in succession without manure. The only other instance known of a similar soil is in the north of India.

Between these fertile tracts and the Black and Caspian Seas lie the Higher and Lower, or Western and Eastern Steppes, the most characteristic features of Russia. These stoneless and treeless solitudes are separated by the Don. The Higher Steppes form a plateau 200 to 300 feet above the sea-level, stretching west along the Sea of Azov and the Black Sea to the outskirts of Little Russia. The Lower Steppes, with a breadth of 300 miles, extend eastward to the Ural River and southward to Mount Caucasus. Along the banks of the rivers of the Western Steppes the soil can, by labour, be made productive; but elsewhere only rank grass grows, upon which countless droves of horses feed, but which oxen refuse to eat. The Crimean Steppes are gay with fragrant flowers in spring; these soon, however, disappear with the drought of summer, and then the Steppes become monotonous plains of dust. The Lower Steppes are drearier even than the Higher. In the parts near the Caspian they are composed of sandy shells, and so impregnated with salt that vegetation at the best consists of scanty grass, and that only for a short season of the year. Saline lakes also exist, which by evaporation in the summer months are made to yield enough salt to supply the greater part of the empire.

ĕ′-min-ènce
knuck′-le
phy′-si-cal
mon-o′-ton-ous
sĕ′-par-at-ed
trav′-el-ling
so′-li-tudes
drear′-i-er
nav′-ig-a-ble
mer′-chan-dise
con-tin-ent′-al
im-preg′-nāt-ed

Treaty boundaries, artificial limits determined by agreement.

Russia forms a vast plain, with the Ural Mountains in the east and the Caucasus in the south. The Valdai Hills form a water-parting in the great plain.

The southern part of the plain consists of dèsolàte and sterile plains called Steppes.

The chief rivers of the southern watershed are the Volga, Don, Dnieper, and Dniester; of the north-west watershed, the Vistula, Niemen, and the Western Dwina; and of the northern basin, the Petchora, Mesen, and North Dwina.

LESSON XXVI.

RUSSIA.—CLIMATE AND NATURAL PRODUCTIONS.

In such a vast country as Russia, the climate must vary greatly. Even within the narrower confines of England, where the sea prevents the temperature as a rule from being extreme, distinct differences of climate are observed in spots not very distant from each other. Weather, however, or the daily change of climate, is much more to be depended upon over Russia as a whole, than in England; and the seasons, which, in the Arctic division, consist only of a long winter and a short, hot summer, recur almost to a day's date. Generally, the winters are colder and the summers warmer than in the same latitudes of Western Europe, while their extreme character increases eastward towards Asia. The causes that produce the peculiarities of the climate are simple. The moist and genial south-west winds that blow from the Atlantic Ocean across Europe become dry before they reach Russia, and are chilled by the mountains they have crossed; while the cold currents from the north-east, unchecked by any rising ground, have full play over the land, often

WINTER TRAVELLING IN RUSSIA.

bringing Arctic blasts, with the fury and violence of whirlwinds, and piling up deep drifts of snow.

In the most northerly territories, towards the confines of the Arctic Ocean, winter is but one long night of six months' duration, brightened by clear moonlight and the brilliant Aurora; while the brief summer, though hot, is often overcast, the sun being sometimes hidden for many days. In the latitude of St. Petersburg, winter, so severe as to freeze mercury, lasts nearly eight months, beginning almost without notice in October, and disappearing as suddenly in May. Even at Moscow, nearly 300 miles further south, the average temperature of the year is only 40°, with foggy autumns, and rough and severe winters; and at Astrakhan, at the mouth of the Volga, in the same parallel as Bordeaux, in sunny France, ice is so thick that laden waggons are freely driven over the surface of the river. Except in the Crimea (in the south of Russia) the winter lasts for an average of 230 days, during a third of which the rivers are icebound. Even in the Crimea the terrors of winter are somewhat appalling, and the Sea of Azov is frozen over, as was the case when the British and French troops were before Sebastopol in the war of 1854 and 1855; but the spring is early, the summer oppressive, and the autumn late.

As animals can exist only where there is food for them, and as the flesh-eating animals find their prey amongst the plant-eaters, the animals of Russia can only abound in the regions of verdure and herbage. Quadrupeds, wild, half-wild, and domesticated, are nevertheless very numerous. The bear and the wolf are common; the sable, ermine, silver fox, and other fur-bearing animals supply the richest furs known. Countless cattle are reared in the Ukraine (a rich pasture-land in the south-west) and in the Steppes; and horses flourish where cattle cannot graze. Many millions of sheep are raised, and swine swarm in the forests which cover almost half of the empire.

Myriads of sea-birds are found on every coast and island, while land birds spread over the plains. Fish of many varieties teem in the rivers, lakes, and seas; and seals are taken in the Caspian and the Baltic for their skins and oil. The reindeer is found in Lapland, in the north, where it constitutes the chief wealth of the rich. Bees also abound, many owners possessing thousands of hives, and devoting themselves to bee-culture. The produce of these, together with the wild honey, not only supplies the Russians, who consume it largely, but leaves much for export. In the Caucasus and the Crimea, the cultivation of the mulberry and the nurture of the silkworm are also making rapid strides.

Of vegetable productions the chief is timber. The forests of Russia are a distinctive feature, covering not far from half the empire, the other half being composed of uncultivated and arable land, water, towns, and roads. Pines, poplars, elms, the Scotch fir and birch prevail in the north ; the beech, maple, alder, willow, and ash are common elsewhere, while the lime-trees alone form great woods in the central parts. Some of the Governments, as the divisions of Russia are called, are nearly all forest-land; that of Perm, for instance, has but an eighteenth of its surface cleared for roads and towns. The largest forest in Europe is that of Volkonskoi, in which rises the river Volga. Besides the timber-trees, the ground is overspread with an undergrowth of brushwood of dwarf birch, hazel, juniper, the wild bilberry, and the cranberry. Of the fruit of the last, large quantities are gathered for export. These forests are a blessing to the people not only as an exhaustless source of fuel, but as a protection from the pitiless north winds.

Vegetation diminishes rapidly towards the north, and towards the White Sea only a few dry stunted shrubs are to be met with. South of these latitudes there are many wide moors and marshes, and sundry saline plains ; but there are also open fertile regions fit for cultivation. Every kind of European fruit and grain grows to perfection, and cooking vegetables, along the lower banks of the Volga, near Astrakhan, reach an enormous size. The products of each botanical zone, from that of the sub-tropics to that of the Arctic region, find a place in Russia. Rice and millet, the mulberry and vine, dyeing and tanning materials, with tobacco, and a profusion of aromatic herbs and flowers, flourish in the south, and give an enchanting aspect to that part of the country during the summer months. Wheat succeeds further to the north, followed by the harder cereals, oats and rye, together with flax, hemp, and the potato. European Russia is deficient in minerals. Iron known as bog ore is found and smelted near Lake Onega and in the Valdai Hills. Finland yields marble and the beautiful green copper ore called malachite. Copper sand is collected in Perm. Poland contributes lignite, or brown coal, and rock-salt.

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be-gin′-ning
ap-pal′-ling
a-ro-mat′-ic
mal′-a-chite
myr′-i-ads
va-ri′-e-ties
rein′-deer
ce′-re-als
pe-cu-li-ar′-i-ties
do-mes′-tic-āt-ed
en-chant′-ing
con-trib′-utes

The climate of Russia is "continental," that is, it is liable to great extremes of heat and cold.

The chief vegetable productions are corn, timber, flax, hemp, and tobacco.

Sheep, cattle, horses, and swine are exceedingly numerous, and the wild animals of the north yield valuable furs. The Ural Mountains yield an abundance of metals—gold, silver, copper, iron, lead, and platinum; but elsewhere the country is deficient in metallic ores.

LESSON XXVII.

RUSSIA.—HISTORY, GOVERNMENT, AND RACE.

THE history of Russia, as one of the great Powers of Europe, begins with Peter the Great, who began to reign in 1689. Peter was a man of fierce passions and given to excess, but of an iron will and patriotic spirit. Before his time, Russia was a barbarous country, and but little known to the rest of the world. The capital was Moscow, in the Grand Duchy of Muscovy, the centre of the empire, a city which is still regarded by the Russians as holy. The sole intercourse with other nations was a rude barter of raw materials, carried on chiefly by the English and Dutch at the single port of Archangel, on the border of the White Sea, at the annual fair which was held for a few weeks in the summer. Peter saw the trading ships and conversed with the merchants, admired their cargoes, and envied their countries the luxuries and comforts they described to him, which neither he nor his nobles could command.

He went to England and Holland for two years to enlarge his knowledge, and worked as a labourer in their dockyards to learn the art of ship-building. Upon his return he brought with him skilled artisans and engineers to teach their crafts to his countrymen; and before long a Russian fleet for the first time floated on the sea. Archangel, however, was at a great distance from Moscow, and, for a large part of the year, impossible of access on account of the ice. Peter therefore desired, even at the cost of war with his neighbours, to obtain other ports.

His greatest project was the foundation of St. Petersburg, in 1703. The town was built of wood, by the forced labour of many thousands of his serfs, upon piles driven into a morass on the Neva. These piles have in many places sunk with their edifices into the soft ground, and numerous fires have assisted to destroy the old wooden structures: these have been replaced by such grand edifices as have raised St. Petersburg to be, next to London and Paris, the most magnificent city in Europe. The Emperor granted such trading privileges to this favoured spot, that it soon became the seat of extensive trade. In a war with Sweden, he added the port of Riga to his Baltic outlets, and by treaty with Turkey, the town of Azov gave him a port on the Black Sea. His next grand scheme was to connect the Arctic, the Baltic, the Caspian, and the Black Seas, by means of canals, enabling ships to pass from river to river; and he soon had the proud satisfaction of seeing his merchant fleets sailing upon all these waters.

It was easier to build ships than to make sailors. Having no seaboard like that of Norway or the British Islands, from which to draw sailors "to the manner born," the mercantile navy of Russia was manned by foreigners, or by natives forced against their will to the service; and only her war ships were, or are to the present day, of much account.

The designs of Peter were left to his successors as a legacy of duty which they have faithfully carried out by the extension of Russian territory, especially towards the sea, and the development of the natural resources of the country. But against the principle of Peter, who encouraged freedom of trade, they have fostered manufactures at home which could be obtained more cheaply from abroad, and preferred money payments for the abundant raw materials of the country to the merchandise or manufactures of other countries. Interchange is thus in a great degree checked, and the Russians have to pay much more for the simple comforts and necessaries of life, common in the states with which they exchange, or to forego them altogether, for the privilege of manufacturing for themselves.

The government of Russia is despotic, that is, the Czar or Emperor possesses power without limit or control, governing by his own right, and styling himself, therefore, Autocrat; while by his subjects, who are very superstitious and ignorant, he is regarded as a sacred person, and almost worshipped as an idol. He is also the sole head of the church. The nobles are very numerous, consisting of the *boyards*, or old class of landowners, and the new order of nobility, created by Peter to help him against the resistance made to his plans by the old order. These nobles have no real authority except so far as it is confided to them by the Emperor.

Until a quarter of a century ago, the serfs numbered three-quarters of the population. They were the property of the landowners and of the

Emperor, differing from slaves only in that the members of a family might not be parted, nor could they be sold away from the soil. Fully a third of them were trading serfs, a position which was the highest object of ambition to the great mass of the people. Hawkers and pedlars were all of this class, and their proprietors, in many instances, obtained the whole of their income from the tax which had to be paid by such serfs for the privilege of trading. Even rich merchants of Moscow were serfs, and could not at any cost obtain their freedom. Alexander II., on coming to the throne, set at liberty, first the whole of the crown serfs, and then those of the nobles, the power of the latter being thereby much diminished.

The Czar rules over more than a hundred tribes, who speak different dialects or languages. Of these, the Russians proper, of Great Russia, with those of Little Russia, the nucleus of the empire, constitute two-thirds. Wandering, or nomadic tribes, such as the Cossacks, people the south and south-east.

pă'-tri-ot'-ic
bar'-bar-ous
wor'-ship-ped
no-mad'-ic
en-gin-eers'
priv'-i-lege
am-bi'-tion
ped'-lars
ĕ'-di-fic-es
for'-eign-ers
e-spec'-i-al-ly
su-per-sti'-ti-ous

Peter the Great may be said to have been the founder of the great Russian empire. He encouraged ship-building, trade, and commerce, and, to assist and stimulate his people in these industries, he built the town of St. Petersburg.

The Government of Russia is despotic; that is, the Emperor has absolute power to govern as he pleases. He is also *the head of the Church, and as such his person is regarded as sacred.*

Until about twenty-five years ago, three-fourths of the population were serfs. They were the property of the Emperor and the landowners. The serfs differed only from slaves, in that the members of a family could not be parted, nor could they be sold away from the soil.

Alexander II. liberated all the serfs.

LESSON XXVIII.

RUSSIA.—POLITICAL FACTS.

EUROPEAN RUSSIA is divided into the six provinces of *Great Russia* in the centre, *Little Russia* in the south-west, *Baltic Russia*, *New Russia* in the south, *Polish Russia*, and *Eastern Russia*, including the kingdoms of Kasan, Astrakhan, and the Caucasus. These provinces are again divided into Governments, varying in number, Great Russia containing 19, and Little Russia 11, while Poland and the Caucasus are Governments in themselves. A further subdivision of the Governments forms circles of administration. Many of these divisions possess local rights and laws, which, however, are subject to be withdrawn at the will of the Emperor. Thus the countries of the Cossacks of the Don and Black Sea are, in name, republics, under their own first magistrates, and subject only to military service. But their privileges have been gradually cancelled, and they are now hardly more free than the other provinces. Finland still enjoys a constitution differing from the other parts of the empire, and a limited system of home rule. Poland also, which at the Peace of 1814 was declared an independent kingdom, with the Emperor of Russia for its sovereign, retains some of its old laws and customs, although, since the revolution of 1831, it has been, with much bloodshed and severity, absorbed as a province of Russia.

Russia supports a vast standing army, reaching to nearly a million of soldiers, whose service is by compulsory conscription. Whenever new levies are wanted, orders are sent without notice to the head men of the villages to furnish recruits for the ranks, in proportion to the population; and the Cossacks, who are said to be born, to live, and to die in the saddle, supply an active and fearless cavalry. It was these dreaded skirmishers who, in Napoleon's disastrous retreat from Moscow, in 1812, beset and harassed the French, while they were suffering from the rigours of a Russian winter. Like all the northern races, accustomed by their climate to endurance, the Russian soldier is hardy and patient; but having only just escaped from slavery, he is deceitful and cunning, although steady and obedient to orders.

Neither cost nor trouble has been spared on the fleet, especially during the last forty years; but circumstances prevent Russia from ever becoming a great naval Power. Fleets are kept up in the Gulf of Finland and the Black Sea, but the

Russians are not a race of sailors, and the naval experience of landsmen, confined to cruises in narrow waters, with outlets which can easily be barred, is of little avail. The Emperor Nicholas spent many millions sterling upon his ships, which, in the last Russian war with England, dared not venture out from behind the fortifications of Cronstadt, and many were sunk in the harbour of Sebastopol to prevent the entry of the enemy.

Office under the Government, by the law of Peter the Great, confers the rank of nobility; but the pay is so small that in every department of the army, navy, and civil service officials increase their pay by taking bribes. Notwithstanding the immense strides which Russia has made since the days of Peter the Great, it is still in a very backward state. The highest classes are well educated, fine linguists, and polished men of the world. The diplomatists, who manage foreign affairs, are astute and patriotic, if not always sincere. The merchants are so keen, that Peter is said to have remarked, that he would not admit the Jews into Russia for fear his subjects might cheat them. The bulk of the people, however, remain untaught, and, their release from serfdom being only of recent date, they have not yet emerged from the condition of semi-barbarism. A common saying expresses this fact:—"If you scratch a Russian, you find a Tartar."

Whatever may be the power and the will of the Emperor, it is difficult to break down the prejudices of the old nobility—the boyards, who cling to the old ways, and restrain the people from taking a share and an interest in the Government. How strong this feeling is, we in England, where public opinion rules the State, can hardly comprehend. In Russia, the denial of reasonable freedom has led to excesses of fanaticism and has endangered society, by provoking the commission of terrible crimes. Secret societies, under the name of *Nihilists*, have set forth doctrines, and employed agents, for the destruction of life and property, with a boldness and secrecy not to be equalled in any other civilised country in the world.

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con-sti-tu'-tion
com-pul'-so-ry
ex-pĕr'-i-ence
pa-tri'-ot-ic
har-ass'-ed
en-dūr'-ance
de-ceit'-ful
lin'-guists
pre'-jud-i-ces
fa-nat'-ic-ism
so-ci'-e-ties
se'-cre-cy

Can'-cel-led, taken away, suppressed.
Con-scrip'-tion, a forced enrolment for military or naval service. The conscript is chosen by lot, and is compelled to serve.
Skir'-mish-ers, small bodies of troops sent in advance of the main body, or thrown out on all sides to scour the country and give notice of the movements of the enemy.
Di-plom'-a-tist, one who conducts the affairs of his country at a foreign court.
Ast-ute', shrewd, clever, crafty.

European Russia is divided into six provinces—Great Russia in the centre; Little Russia in the south-west; Baltic Russia; New Russia in the south; Polish Russia; and Eastern Russia.

The provinces are again subdivided into Governments—60 in all.

The standing army maintained by conscription amounts to a million in number.

The despotic system of government has given rise to many secret societies which seek to overthrow it.

LESSON XXIX.

RUSSIA.—AGRICULTURE, MINING.

RUSSIA is essentially an agricultural country, though not more than a sixth part consists of arable land. The Government and the landowners have striven much to improve the husbandry, which, for the most part, still remains in the rudest state. Owing to the absence of roads, and the great distance of the markets from each other, abundant harvests of grain are sometimes left to decay upon the soil, not paying for the cost of cutting and carriage. The production of wheat, on the deep vegetable soil of the south, is enormous, though the staple grain for food is rye, of which but little is exported.

The nature of Russian agricultural produce has altered very little since the beginning of its industrial history, but the amount has increased. Of wheat alone, such is the scale of production, that a surplus of fourteen millions of hundredweights has been sent out from the Black Sea ports of Odessa and Cherson in the course of a single year, together with four million hundredweights of barley, maize, and oats.

Other important branches of husbandry are the growth of flax, hemp, and rape, for their seeds, and the oil expressed from them; the first two also for their fibre, from which yarn is prepared for linen cloth, canvas, and cordage. It was hoped that the possession of the fertile tracts of the Caucasus, the climate of which is warm enough to ripen sub-tropical produce, would enrich the empire with silk, tobacco, cotton, wine, rice, saffron, madder, cochineal, sugar, indigo, and southern fruits. But the long resistance of the brave and hardy race to military occupation has been unfavourable to industrial progress. The vine grows freely in the Crimea, although the wine produced is of an inferior quality, and hardly repays the labour of the vine-dresser; still, the cultivation is extending. More favourable results have followed the care bestowed upon the mulberry tree and the silkworm culture.

The Russian forests are an invaluable source of wealth. They supply exhaustless fuel, timber for ships, houses, and furniture; and enormous quantities for export; besides potash, pitch, tar, turpentine and resin, with other so-called forest products. These forests are the home of innumerable wild bees, who make their hives in the old and decayed trees. The forests also swarm with swine, the number of which may be imagined from the fact that their bristles—for the manufacture of brushes

—have been exported to the value of three millions sterling in a single year.

Cattle and sheep rearing are scarcely less important industries than tillage. Horses and oxen thrive upon the Steppes, where vast numbers run half wild; and still larger and increasing numbers are bred in the Ukraine. Sheep alone are reckoned at nearly a hundred millions in number. Beside the animals whose flesh is used for food, camels and asses are common as beasts of burden in Taurida (a district including the Crimea); and in the sterile regions of the north the reindeer takes the place of almost every domestic animal.

In national importance the fisheries are hardly second to husbandry. These fisheries follow the seasons. Many fish are taken in the summer when the lowness of the water drives them toward the sea. From September to November the fish again ascend the rivers in search of deep pools to pass the winter; and in winter they are caught by nets sunk through holes in the ice. The rudest modes of capture and curing are pursued. Having gutted the fish and separated the roes and sounds or air bladders, the curers salt and pack the fish The sounds dried in the sun become isinglass, and the roes, from which the fat is removed, after being pickled and barrelled, receive the name of *caviare*, the consumption of which in Russia is very great. The greatest quantity of *caviare* is made during the spring fishing, at the breaking of the ice.

The trapping of the fur animals affords employment and livelihood to many of the people, the skins and furs thus obtained being of great value.

The primary industries of mining and quarrying bear no proportion to that of agriculture, though considerable quantities of metal are smelted. Such, however, is the desire of Russia to make use of her own resources, rather than be dependent upon imports from other countries, that mines of iron and copper are worked, which would not pay their cost, except for the heavy duties laid upon foreign metals, to keep them from competing with native products. The consequence is, that eighty millions of Russians have to pay dearly for all their hardware goods and machinery, in order to benefit a few hundred owners of mines. The metal-producers are thereby enabled to keep up the value of their produce to the full amount of what foreign supplies, with the duty added, would cost. While this policy enriches the few mining proprietors, the use of the metals all over the empire is checked by their dearness, and the many have to pay to support the few. Poland possesses mineral resources of considerable value in its beds of rock-salt, which belong to the wonderful salt formation of the Carpathians—enough to supply the world through all time. More salt, however, is procured from the saline regions of the Caspian than from the Polish deposits. Poland also possesses beds of bituminous coal, in many places 30 feet thick.

Russia is not rich in building stone. Granite pierces through the surface in Finland, and great boulders, supposed to have been wrenched off by the action of ice, are strewn over the southern provinces, having been borne thither by the glaciers which spread over Europe before the memory of man. Marble is also worked in Finland. Clay is common; and gypsum, from which plaster of Paris is made, occurs in various parts. The gypsum grottoes of Perm are a natural curiosity.

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es-sen′-ti-al-ly
hun′-dred-weight
live′-li-hood
coch′-i-neal

re-sist′-ance
glac′-i-ers
grot′-toes
gyp′-sum

im-ag′-in-ed
bar′-rel-led
bit-u′-min-ous
pro-pri′-e-tors

Three-fourths of the inhabitants of Russia are employed in agriculture and pastoral industries. About one-seventh are employed in manufactures, and these are chiefly peasants, who thus utilise the long, hard winter.

Great quantities of wheat, oats, and other grain are grown for exportation. Rape and flax are grown for the oil obtained from their seeds; and flax and hemp for the yarn prepared from them for linen cloth, canvas, and cordage. More than two million pounds' worth of the seeds are yearly exported to England alone.

The produce of the forests—timber, potash, pitch, tar, turpentine and resin—is exported in vast quantities.

Other large exports from the animal kingdom are hides, bristles, wool, tallow, and honey.

LESSON XXX.

RUSSIA.—MANUFACTURES.—FAIRS.

CONNECTED with agriculture are various secondary industries, some of them of much importance. Amongst these Russian tallow, very fine in quality, made from the fat of the myriad beeves and sheep, furnishes materials for an enormous manufacture of candles, and is, perhaps, of greater value than any one single commodity besides. The hides, skins, wool, hair, bones, and horns of the animals are all turned to industrial uses. Leather, both coarse and fine, is only second in importance to the production of tallow. The best morocco leather comes from Russia. This, with the peculiar kind specially named Russian leather, fragrant with the essence of the birch tree, with which it is prepared is much admired for fancy work and bookbinding. Poland is the great wool-producing country, and the supply is enlarged by contributions from every sheep-rearing district. Silk, in like manner, though not a native product, has taken root as a national industry, and bids fair every year to become an increasing source of wealth.

In the vegetable kingdom the fibrous plants, flax and hemp, take the first place in these secondary industries. Linen is woven in many parts, and coarse canvas for sail-cloths, and cordage, are made principally at Archangel and Orel. Seed-crushing for the expression of the oil of linseed and hemp prevails where these plants flourish, the oils finding a ready market both home and foreign. As "driers" they are much in demand in the preparation of paint. Colza oil, a clear burning oil for lamps, is also obtained from rapeseed. The distillation of corn brandy, or whisky, of which the Russians are great consumers, and the brewing of a kind of beer called *bragu*, occupy the peasants almost everywhere, and are large and profitable industries.

Cotton spinning and weaving, and calico printing have made great progress, though the whole of the raw cotton is imported, chiefly by way of England. Spinning mills, both in the old and new capitals, were started in 1824, and the first calico-printing works in 1830, at Moscow. The value of the cloth now produced yearly exceeds ten millions sterling.

How ill-suited are the resources of the country and the genius of its people to the arts of manufacture as compared with the preparation of raw materials, is seen in the fact that the textile works could not stand their ground except through the heavy duties which keep out foreign goods, and also in the engagement of British and German managers of the works. St. Petersburg makes only the finest fabrics for the wealthy; Vladimir, cheap goods for the peasants; Moscow both kinds; but all much dearer than in England. Most of the cotton mills of Moscow were started by one firm, who have usually chosen Englishmen as their principal workmen. Englishmen carry on other large spinning mills elsewhere, they also work the mines of Finland, make cutlery from native iron at Helsingfors; and at Abo, the port of Finland, Scotchmen chiefly are employed to build the Government steam vessels.

The inland trade, chiefly carried on by innumerable boats and rafts of timber, and in winter by sledges driven over the snow, is entirely in the hands of the Russians. It is large, but capable of boundless extension, if better means of communication existed. There are few good roads, though that from St. Petersburg to Moscow, macadamised or laid with small granite throughout, and lined with trees, is considered the finest in Europe. The forest roads, where there are any, are formed of trunks of trees placed side by side, such as in America are called "corduroy" roads. Even the communication by water, though improved by the grand system of canals uniting rivers, and affording passage to every point of the compass, still leaves wide expanses of pathless land.

Some thousands of miles of railway have been laid of late, which, though designed as much for military purposes as for trade, have aided greatly in developing the natural resources of the empire. In winter, strange to say, the absence of roads is less felt, the ground being covered with a deep even layer of snow that makes sledge travelling easy. Owing to the extent of the country and the badness of the roads, depôts, or markets, where great fairs are held at stated times, have long been established to promote interchange. Itinerant, or wandering merchants, like the old lumber dealers of England, traverse every part of Russia to collect from the peasantry the bristles, rags, fat, bones, and other refuse, which are saved in view of such visits, and which at the fairs excite eager competition. Rags not only supply material for Russian paper, but leave a large surplus for export.

Between thirty and forty of these fairs take place in the chief towns once or twice a year, but that of Nijni Novgorod, on the Volga, in the very centre of Russia, is by far the most important, and probably the largest in the world. The fair lasts two months, during August and September, and is frequented by traders from the confines of Asia as well as from Western Europe, who bring with them the produce of all countries, including even merchandise from America. Business done during the fair occasionally reaches a value of more than ten millions sterling. Moscow is another of these great inland emporiums, whence the stores are transported to the seaports and frontier towns. Astrakhan, at the delta of the Volga, is the emporium of an overland trade with Asia. The Russians are greater tea-drinkers than even the English, and the tea brought to Astrakhan from China by the land route is thought to retain a better flavour than any that is borne by sea.

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sĕ′-cond-a-ry
mo-roc′-co
ex-ten′-sion
trav′-el-ling
de-sign′-ed
cor-du-roy′
i-tin′-e-rant
com-pe-ti′-tion
de-vel′-op-ing

Express, expression, used in speaking of the process of squeezing out the oil of seeds, &c.

The chief manufactures of Russia are candles, leather, cotton and silk goods, rough linen, sail-cloth, and ropes. The largest factories for cotton and silk are situated in and around St. Petersburg and Moscow.*

The inland trade is facilitated by the great fairs which are held in various towns. The roads are few in number, and goods are chiefly carried on rafts or boats in summer, and in winter on sledges driven over the frozen snow.

LESSON XXXI.

RUSSIA.—COMMERCE.—CHIEF TOWNS.

GENERALLY speaking, the exports of Russia consist of raw materials and coarse fabrics; the imports of fine goods, colonial produce, and raw materials for manufactures. There is a disparity between the exports and imports, the Government willingly letting produce whether raw or manufactured leave the country, but being jealous of taking anything in exchange which would interfere with or reduce the value of her home fabrics. As a consequence the commerce of the Baltic is chiefly in the hands of the English, French, Germans, and Dutch, while that of the Black Sea is shared with Turkey and Italy. Foreign trade is thus crippled; and while it advances year by year, its progress bears no comparison with that of the nations just mentioned. Money, or bullion—that is, uncoined gold and silver—is esteemed by Russia before any commodity in exchange. While, therefore, the native merchants cannot bring back cargoes from abroad with advantage, they are not greatly encouraged to send away cargoes from home. Many things essential to Russia are in the hands of the English, who can take in return any amount of the raw produce of Russia, and who, in fact, nearly monopolise the foreign trade.

Of late years the United States and Canada have become competitors for the supply to England of nearly every commodity, for which Russia was once our sole dependence, and the Russian trade has consequently decreased. Timber, and all other forest products, formerly brought from the woodlands on the banks of the Dnieper, if not quite diverted from the ports of Cherson and Riga, are now obtained elsewhere, to an extent never before thought of.

In the same way, wheat, the export of which was the mainstay of the prosperity of Odessa, the principal port of the Black Sea, is now obtained in immense quantities from Chicago, in America, where the harvests of thousands of square miles are stored, making it the largest granary in the world. On the other hand, Russian grain is sometimes left to perish in the field, because it does not pay to gather it. The injury to Russia by a false policy cannot be computed. But to change the system is not easy, because the people are now used to it, and the few who would suffer by freer trade easily persuade others that the whole country would be injured.

St. Petersburg takes to itself fully half of the external trade, supplying Moscow and the interior with foreign commodities. This is due to its being the capital, and an attractive place of residence for foreign merchants rather than to its position, which is not the most suitable for commerce.

NEVSKY PROSPECT, MOSCOW.

The English quarter is, next to the district of the palaces, the finest part of the city. The foreign merchants, and other visitors under the name of "foreign guests," are to be found, not only in the frontier ports, but also in Moscow. Their wealth enables them to render invaluable service as agents for the extension of commerce, as well as, by their connections abroad, to make arrangements for the safe transfer of money. The native merchants do not understand such things. They are suspicious of foreigners, and without these resident foreign agents, commerce could hardly be carried on.

The whole Empire of Russia spreads over one seventh part of the land of the earth, and contains one-thirteenth of its population. This, however, is smaller than the scattered dominions of the Queen of England, both in extent of territory and number of inhabitants. Vast as is the empire, there are no foreign possessions properly so called. Asiatic Russia, or Siberia, is but the extension of the wide northern plain which embraces the Arctic circle, and sweeps over into America. Russian America—Alaska—with an area of nearly 400,000 square miles, an inhospitable and barren region, but little known and only valuable for its fur bearing animals, was sold by the Government to the United States in 1867, at the rate of about one pound sterling for every square mile.

There are in European Russia about 40 towns containing more than 20,000 inhabitants each. St, Petersburg contains half a million, nearly twice as many as Moscow, and four times the number of Warsaw or Odessa, the next largest towns. Moscow is interesting as the ancient capital, and for the sacred regard in which it is held. This did not hinder the governor, however, from setting it on fire, and burning 11,840 houses, beside palaces and churches, in the ruthless winter of 1812, in order to compel Napoleon to evacuate the city. A colossal monument commemorates the disappointment and defeat thus brought upon the French. The architecture of the city combines the styles of the East and the West. Moscow is the centre of the internal water communication, and in other respects is like the heart of the empire, if St. Petersburg is the head. Moscow is still the scene of the coronation of the Emperors. Its principal building is the citadel, or palace of the Kremlin.

Cronstadt—the Malta of the Baltic—an impregnable fortress, with dockyard and arsenal, in the shallow waters of the Gulf of Finland, is the port of St. Petersburg. Vilna, in the Baltic province, is inhabited almost entirely by Jews. Cherson is a timber port in the Black Sea, at the mouth of the Dnieper, where Howard, the prison philanthropist, died, and to whom a monument has been erected.

Narva, where Charles XII. of Sweden defeated Peter the Great in 1700, and Pultowa, where the Russians were avenged by the defeat of Charles, after he had, as Peter said, taught them how to conquer, are noted battle-fields. The Alma and Inkerman are fresh in English memory as the scenes of victories over the Russians in 1854 and 1855, in the war which closed with the destruction of Sebastopol.

pol′-i-cy
es-sen′-ti-al
co-los′-sal
mon-o′-pol-ise
rĕ′-sid-ence
cit′-a-del
su-spic′-i-ous
im-preg′-na-ble
co-ron-a′-tion.

Dis-par′-i-ty, unlikeness, inequality.

Phil-an′-throp-ist, one who seeks to do good to his fellow-men, one who practises charity on the ground of humanity.

The chief towns of Russia are:—St. Petersburg, the capital, a fine city on the Neva, with half the foreign trade of the empire, carried on through Cronstadt, its port; Moscow, the old capital, and the centre of the internal trade; Warsaw, the capital of Polish Russia; Odessa, a great corn port on the Black Sea; Riga, the chief port, next to St. Petersburg, on the Baltic; Astrakhan, the centre of the trade round the Caspian Sea; Nijni Novgorod, celebrated for its annual fair; and Archangel, the port of the White Sea.

ITALY.

LESSON XXXII.

ITALY.—PHYSICAL FEATURES.—CLIMATE.

FROM the inner curve made by the Swiss, French, and Austrian Alps, Italy stretches in a south-east direction in the shape of a jack-boot. On the map, this likeness is very striking. At the northern part, seemingly rooted in the curved Alps, the country is 380 miles broad; and this portion represents the upper and broad knee-part of the jack-boot. At the southern end, the shape of a foot is very distinct, with instep, toe and heel, each of the latter finishing in a headland. The long and somewhat narrow strip of land, between the knee-part and the foot, is very much like the leg of the boot. This peninsula, 720 miles long, is the mainland of Italy; but there are two large islands—that of Sardinia, away in the west, and that of Sicily, on the south-west, separated by a narrow streak of water (the Strait of Messina), only two mileswide. On the map it seems as though the island of Sicily were about to be kicked away by the toe of the boot. The whole kingdom (mainland and islands) has an area of 114,500 square miles, nearly equal to that of the British Isles.

This long peninsula, almost at the southern end of Europe, is remarkably regular in its mountain systems. The broad part in the north is bounded by the rugged Alps; and the narrow peninsula has a high chain of mountains running nearly along the middle down to the very toe of the boot, and thence through the Isle of Sicily, broken only by the narrow Straits of Messina. This long and high range, called the Apennines, is a kind of backbone (in some parts upwards of 9,000 feet high), from which ribs, or spurs, stretch right and left towards the sea, bounding deep and rich valleys.

These mountain heights, however, are relieved by some vast plains. The whole of the broad part in the north, hedged nearly round by the Alps, and stretching from Switzerland on the west to Austria on the east, at the head of the Adriatic Sea, is a fertile and charming plain measuring 300 miles across from west to east, with a width from north to south varying from 50 to 120 miles. This plain, which forms the basin of the River Po, and includes four provinces—Piedmont, Lombardy, Venetia, and Emilia—is styled "the garden of Italy," and might also be termed "the garden of Europe." It is divided into farms of from 10 to 60 acres; the fields are mostly separated from one another by lines of fruit or forest-trees; and wheat and rice are grown in great abundance.

The narrow peninsula, too, has plains of considerable size, and extensive marshes along the shores on either side of the Apennines. The western side of this chain has the States of Tuscany, Rome, Naples, and Calabria. Those of Tuscany and Rome stretch for about 200 miles, and have on their shores some marshy and pestilential regions called the Maremma, from which such noxious vapours arise as to render them uninhabitable. The region about Capua, north of Naples, is a wide plain so level that "neither hillock nor height would hide a sheep." Lesser plains skirt the shore between the sea and the mountains, forming a narrow ledge of land. And on the eastern side of the Apennines, bordered along the whole length from north to south by the Adriatic Sea, the shores are low.

The chief rivers of Italy are the Po, the Tiber, and the Arno. The first of these is much the largest. It receives its waters from various streams draining the southern slopes of the Alps; and, after flowing through the great plain, it empties itself by many mouths into the Gulf of Venice.

The islands belonging to Italy are few in number—the large ones are Sardinia and Sicily, the lesser are Elba, and a number of very small ones called the Lipari Isles (north of Sicily and west of Calabria). *Sardinia* is very mountainous on the eastern side and in the middle, but is more level on the western side. The island lies in the western Mediterranean, just southward of the French Isle of Corsica, the birthplace of the first Napoleon. *Sicily* is the largest island of the Mediterranean, measuring more than 10,000 square miles; and, as before stated, almost touches the southern point of the mainland. Elba, off Tuscany (north-west), is noted for having once been the place of banishment assigned to Napoleon I.

In Italy, volcanoes form the most striking feature to travellers. On the eastern side of Sicily, overlooking the sea, stands a terrible volcano—that of *Mount Etna,* measuring 90 miles round its base and 11,000 feet in height—which once, in an eruption attended by an earthquake, overturned the town of Catania, 10 miles off. Although its eruptions are less frequent than those of some others, its fury surpasses that of any

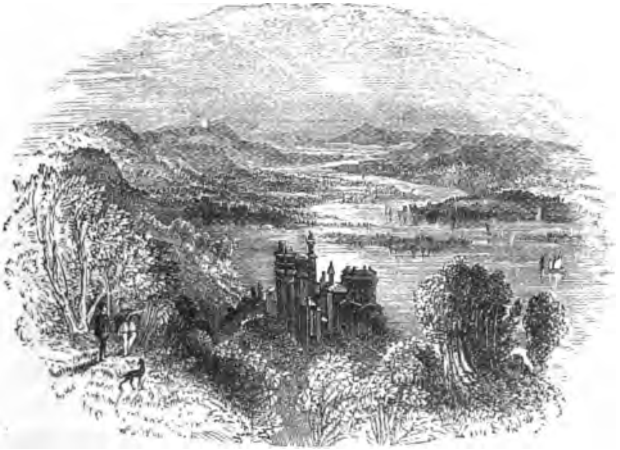
ISLAND IN THE TIBER (ROME).

belonging to Italy, when the inner fires, instead of spending their power through some weak place in the side of the crater, are strong enough to find their way out at the top of the mountain.

Mount Vesuvius, on the coast near Naples, is more frequent in volcanic eruptions than is Mount Etna, but its power is not so great. About eighteen hundred years ago, however, after a rest of centuries, so violent and sudden were the eruptions that the town of Herculaneum, at the base of the mountain, was almost suddenly buried under a flood of lava, and that of Pompeii under a shower of ashes. Not very many years ago, a ploughman having struck some ruins in a field, attention was excited, excavations were made, and revealed the two cities, in which skeletons of men and women were found in position and attitudes showing that they were stifled while endeavouring to escape. Two skeleton soldiers stood on sentry at one of the gates, having kept their place for seventeen hundred years.

In Lipari (one of the smallest islands already referred to) there is a smaller cone which is constantly vomiting its fire and smoke; and the whole of the region about these volcanoes is subject to earthquakes from time to time, as well as to a regular outpouring of hot water in several places.

The coast-line extends to a length of 2,200 miles, but it is not much indented; still there are some fine openings, including the Gulf of Genoa (north-west), the Bay of Naples (west), the Gulf of Taranto (south), and the Gulf of Manfredonia (on the east, in the Adriatic). There are two straits—the Messina Strait, which forms a channel two miles wide between the Isle of Sicily and the southern end of the mainland, and the Straits of Bonifacio (so named after Pope Boniface)—a narrow passage separating the Italian Sardinia from the French Corsica. The chief lakes are Como, Maggiore, and Guarda, at the base of the Alps, the first named being surrounded by the most sublime scenery, and the second noted for the sweetest repose. There are other lakes among the Apennines, and numerous lagoons on both the



SCENE IN ITALY.

eastern and western shores. The Bay of Naples, already referred to, is deemed the very perfection of beauty. The phrase has become common, "See Naples and die," meaning that the spectator has seen the chief sight of the world.

The *climate* of Italy, excepting in those marshy parts where noxious vapours rise, is delightful and beautiful, and untroubled by frequent changes. In the north (in the valley of the River Po) it is temperate, like that of Central France ; the lakes and lagoons freeze in winter; and so free is it from excessive heat that oranges and lemons will not ripen in the open air. But in the middle zone of the peninsula, on which Naples stands, snow and ice are very rare, and the valleys are filled even in winter with the finest fruits ; besides, roses grow near the sea-shore at Christmas-time. So genial is the climate here that about 30,000 *lazzaroni,* or beggars, in a wretched state of vice and ignorance, live night and day in the highways and on the sea-shores, having no settled homes. The extreme south is sub-tropical, the water never freezing at any part of the year; the sugar-cane, the cotton-plant, the cactus, the aloe, the Indian fig, and some species of palm flourish. The skies of Italy are almost cloudless, and of a beautiful, bright, clear blue, during a great part of the year.

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re-liev'-ed
as-sign'-ed
trav'-el-lers
ig'-nor-ance

pesti-len'-ti-al
mea'-sur-ing
vol-can'-oes
ex-ca-va'-tion

nox'-i-ous
skel'-e-ton
ter'-ri-ble
re-fer'-red

Italy has an area about equal to that of the British Isles. It is a mountainous country, having the Apennines running throughout the entire length of the peninsula. The basin of the river Po, in the north, is a magnificent and fruitful plain.

The islands of Italy are Sicily, Sardinia, Elba, and the Lipari Isles.

Mount Vesuvius, near Naples, and Etna in Sicily, are active volcanoes.

Italy possesses many beautiful lakes, of which Como, Maggiore, and Guarda are the most noted.

Except in the pestilential region called the Maremma Italy has a genial and beautiful climate.

LESSON XXXIII.

ITALY.—NATURAL PRODUCTIONS.

ITALY is richly endowed with native resources in all the three kingdoms of nature, and is admirably adapted, by the diversity of its surface, soil, and climate, for the introduction of plants and animals from every part of the world. The luxury of the ancient Romans enriched it with the growths of their world-wide possessions, which were added to by the wealthy trading republics of the Middle Ages ; and many of these exotic products have become the leading features in the industry of the country.

Northern Italy resembles in its vegetation the warm regions of Germany and France. Wheat, and maize, and rice are the chief grains, nourished by the Alpine streams and skilful irrigation. Chestnut forests and evergreen oaks adorn the landscape. Graceful festoons of the vine are trained over pollard-elms, poplars, and mulberry trees pruned down to shrubs to encourage the foliage; or they connect rows of the olive bordering the fields, at one and the same time yielding grapes, and shading the grain crops beneath from the glare of a scorching sun. The Tuscan grasses are highly valued for the fineness and beauty of the straw, which is plaited and made into "Leghorn" bonnets and hats. Middle Italy is the region of evergreens, the laurel and the myrtle, of the olive, and, in sheltered places, the orange. Rising above the evergreens on the mountain sides the leaf-shedding trees of more sombre climes appear—oaks, beeches, and pines, the arbutus, and juniper.

Southern Italy produces most of the plants of both the temperate and tropical zones; the palm tree and cactus, side by side with the oak and the orange. It yields the choicest productions in oil and wine, in grain, citrons, and gourds, in both stone and fleshy fruits; and the pine-apple is abundant. In Sicily the heat and moisture are sufficient for the Egyptian papyrus, the date-palm, and the sugar-cane. The mulberry tree, for the feeding of the silkworm rather than for its fruit, is planted from north to south, but most extensively in Calabria. Vesuvius is covered with vineyards, the source of a highly-prized wine.

Italy in general is deficient in timber, the forests having long since been cut down. The sweet or edible chestnut remains as a forest tree, more for its fruit, which is eaten as food by the peasantry, than for its wood.

The animals of Italy are none of them peculiar to the country. Porcupines are the most curious wild quadrupeds in the south, and among the mountains or forests are to be met with the wild goat and chamois, the wolf, wild boar, and lynx. Of domestic animals the Italian ox is the largest breed known, and many of them are splendid animals, both in form and as food producers, though perhaps not equal to the finest British stock.

Grazing, except on the Maremma, is not much attended to, the country not being well adapted for grass. Pasturage for sheep is therefore scarce, and there are few large flocks, except in the district of Puglia. Herds of goats, however, are kept, more particularly in the south, and from these are derived the chief supplies of butter, cheese, and milk. Oxen, asses, and mules are used as beasts of burden, as is the case through most of the south of Europe, horses being but little employed except in the great cities. More horses are to be seen in Naples than elsewhere, but preference even there is given to the sure-footed mule. Swine are numerous ; wild fowl frequent the marshes ; and the forests abound in feathered game. The fisheries are invaluable as sources of food. Shoals of tunny, a fish like a mackerel, are taken with a net, both for its oil and flesh; and the delicate anchovy and sardine, and innumerable mullet, esteemed for their roe, employ many hundred hands in catching and curing in the spring and early summer months. Valuable red coral is dredged along the coast, and the large pink wing-shell is sought, to be cut into *cameos*. These shells have two layers of different colours, and the upper layer can be cut away so as to show white figures on a richly tinted background.

Insects in the summer swarm in the air, and fill the houses so as to be quite a pest; yet two or three kinds of these small forms of life are of leading importance to the national well-being. The white mulberry from China has provided food for myriads of silkworms, and cactus plants for the cochineal, a little scale insect producing a brilliant dye. Profitable employment is found for thousands of people in the culture of these insects and the preparation of their produce. Bees in profusion sip the sweets of the aromatic flowers with which the land is covered, and store countless hives with the finest honey and wax.

The minerals of Italy are numerous, but, apart from iron, are not very abundant; and even the iron, from the backwardness of the arts of mining and smelting, until of late years was almost wholly imported from England. Iron is obtained in Lombardy, but the finest quality is from the inexhaustible stores of the Tuscan island of Elba. Copper is found in various places, and unwrought lead mines exist in the Maremma. Coal is almost utterly neglected, although there are many beds. Millions of hundredweights of sulphur have been contributed by the volcanic regions of Sicily and Naples, without apparently decreasing the store. Gold and silver are not now profitably worked. Antimony, vitriol, alum, borax, rock-salt, and petroleum are yielded in quantities sufficient to encourage separate industries. Granite quarries at Elba, which furnished the columns for ancient Etruscan architecture, are still in operation, and building and paving stones are abundant. Carrara, near Modena, produces the purest statuary white marble, and there are quarries of a delicately tinted yellow kind at Sienna, where the mountains are wholly composed of this beautiful stone.

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re-sourc'-es
lux'-u-ry
nour'-ish-ed
mul'-ber-ry
ir-ri-ga'-tion
suf-fic'-i-ent
arch'-i-tec-ture
pe-tro'-le-um
peas'-ant-ry
prĕ'-fer-ence
dĕ'-li-cate
coch'-i-neal

Ex-ot'-ic, coming from outside, of foreign origin.

Italy has a variety of vegetable productions. Wheat and maize are the chief grains. Mulberry trees are grown for the silkworm, grapes for the manufacture of wine, and olive trees for the oil extracted from the fruit.

Domestic animals are numerous; but the chief supply of milk, butter, and cheese is obtained from goats instead of from cows. The anchovy, sardine, and mullet are principal fish.

Excellent iron is obtained from the island of Elba and elsewhere. Sulphur and fine white marble are other important minerals.

LESSON XXXIV.

ITALY.—INDUSTRIES.

THE productive industry of Italy resolves itself into that of its separate States whose commercial and political history has passed through many changes of fortune. From the fall of the Roman Empire until the present age Italy was an assemblage of rival States, jealous of each other and always at variance. Recently, however, they have been united in one kingdom to the great advantage of all. The country is essentially agricultural and commercial. The Romans are known to us more as a warlike and conquering nation than as an industrial people; yet in the first period of their history, agriculture was held in the highest honour; every citizen cultivated his own ground, and the names of several noble families were taken from the different branches of husbandry in which they were engaged. Some of their illustrious warriors were called from the plough to lead to victory against an enemy, returning to their farms when the patriotic service had been rendered. The most renowned of the Roman poets made agriculture the theme of his verse.

Rome itself was denied any natural resources for interchange; but as "the gate-keeper of the world," the centre to which tribute converged through a thousand channels, the city became

ROMAN PEASANTS.

a mart or clearing house for the productions of every clime, importing everything, and exporting no produce of its own. The Romans encouraged industry by making intercourse easy. They constructed roads and bridges, built cities and aqueducts, and taught barbarous races to till the soil. Their great works spread over every province, from Britain to the Euphrates. So broad and firm were these roads that many remain entire as the highways of the present day.

Venetia, on the mainland of Italy, had long been a flourishing part of the Roman Empire, when the Huns drove the inhabitants from their homes. The people had to change the oil, and the honey, and wine, of the generous soil they had left, and the meadows which had nourished their cattle, for the flats of sand and mud deposited by the lagoons of the Adriatic. Here they formed a town on a number of little islands, the germ of that strange and beautiful city, Venice—in which all the principal thoroughfares are canals, and where boats are the only carriages. Their resources were the sea-fowl, a stunted vegetation, salt from evaporation, and fish from the sea. With these they traded, got in exchange food, clothing, and timber for their galleys, grew to be daring sailors, and so increased in power and wealth, that they were able to extend their territory to its former bounds of the Carnatic Alps and the river Adige. They thus again possessed themselves of a fertile tract, producing abundant and varied crops. The streams which came down from the hills were turned to account, as feeders of canals for traffic and irrigation, The climate, though rather insalubrious from the presence of the lagoons extending from the

WATER SCENE, VENICE.

river Po, was favourable to animal and vegetable life. Cows fed upon rich pastures; and grain, fibres, and pulse were raised. In the upper divisions of the State the mountain valleys supplied iron and copper. The ships of these industrious people made them the chief carriers of Europe, and their city became the port of embarkation during the Crusades. At that time the merchant citizens were enriched both by the passage money of the Crusaders and by the costly freights brought by the latter from the East.

The mud huts built at first were transformed into marble palaces ; the few poor fishermen hiding for their lives in the "City of Waters" became the proudest community in Europe, boasting a population of a quarter of a million of souls. Industry was encouraged till the State prospered as much from manufactures as from commerce. So haughty were the nobles, that on the birth of a son their heralds proclaimed—" a lord is born into the world." They aimed at being masters of all the gold in Christendom. Their enterprise led them to regions never before penetrated by trade. Marco Polo, a Venetian, ventured overland to China, to open up the vast regions of Central Asia. An internal traffic through Germany to the northern ports was cultivated with equal care. Jealous of the prosperity of its fellow republics, Venice could not rest until Genoa was crippled and the other States humbled. The golden period of Venetian commerce passed away by the diversion of the Indian trade, following upon Vasco de Gama's voyage round the Cape of Good Hope.

as-sem′-blage
es-sen′-ti-al
pa-tri-ot′-ic
va′-ri-ance
a′-que-ducts
sa-lu′-bri-ous
ir-rig-a′-tion
com-mun′-i-ty
cit′-i-zen

Italy is an agricultural and commercial rather than a manufacturing country. Agriculture was held in high esteem by the ancient Romans, and interchange of goods was promoted by the construction of good roads and bridges.

Before the discovery of the route to India by the Cape of Good Hope, Venice—the city of waters—was the first commercial city of the world.

Previous to the year 1859 *Italy consisted of a number of independent States.*

LESSON XXXV.

ITALY.—TOWNS, &c. (II.)

GENOA is situated on a beautiful bay, surrounded by the southern slopes of the Ligurian Alps. Inland communication is difficult, and the State is cramped for space. There is little in the climate or soil to create opulence. The hills, into which the territory rises, are suitable for orchards and terraced gardens, but not for agriculture. Oranges, olives, and rice barely flourish; and higher up the Alps cattle and sheep are pastured. The fisheries of this part of the Mediterranean are strangely unproductive. Thus the Genoese were compelled to seek at a distance the chief elements of their wealth, and the city retained throughout its history the character of a port of transit, that is, a station to which goods are brought in order to be sent on elsewhere. Nevertheless the raw materials were found for the manufacture of hardware, metal, glass, pottery, and leather. The city became famous for velvets and broadcloths, hosiery, lace, perfumes, and artistic work in gold, silver, and marble. It vied with Venice in riches and power during the Crusades; made conquest of Corsica (since ceded to France) and Sardinia, and became covered with palaces and churches built of porphyry and pure marble. Genoa was always at feud with its neighbours. The Genoese extinguished the power of Pisa, and in turn were compelled to yield to Venice, and were so weakened in the struggle that the Duke of Milan assumed control of their State, which never regained its independence.

Florence, on the Arno, the capital of Tuscany, and Pisa, on the same river, afterwards incorporated under one Government with Florence, drew their resources from the same area, and were affected by similar conditions. Tuscany consists of valleys and plains. The proximity of the Apennines render its winters severe, and subject to occasional chilling winds even in summer. The climate, however, on the whole is genial, and for part of the year delightful. The valleys are of exceeding richness, but the vapours from the southwest, condensed on the Apennines, pour down in devastating torrents, to rise again, under a powerful sun, in rapid and baleful exhalations. Tuscany is rich in its sources of wealth; and manufactures were the main source of the fortunes of its eminent citizens, of whom the Medici reached almost kingly power. The citizens bought their freedom for £70,000 from Rudolf, the first Austrian Emperor, and they became in the end the lavish possessors of luxury and wealth. Silk fabrics and tapestries, straw hats and artificial flowers, soaps, essences and perfumes, lacquer metal and mosaic work, alabaster, glass, musical and mathematical instruments, and carriages were products of Florentine genius and skill. Its princes were great lovers of art, and the collections of pictures and statues they have left attract visitors from all parts of the world.

Pisa was third in importance of the commercial cities. The alliance of the Pisans was sought by Venice against Genoa, and by Genoa against Venice. During the flourishing period of Pisan commerce there arose in the city those marvellous works of architecture, the Leaning Tower, the Duomo, or Cathedral, the Baptistry, and Cemetery Arcades, which are read of with wonder in every tongue, and visited by travellers from every clime. The port of Pisa was destroyed by the Genoese, and the mouth of the harbour was filled up. It was in vain any longer to contend for empire. The republic never recovered from the reverse. "If you wish to find Pisa," it was said, "you must look for her in the dungeons of Genoa."

The republics of Italy were formerly so many and their changes of fortune so frequent, that the

VERONA.

briefest reference to each would fill a large space.

Amongst them were Amalfi, Ancona, Bologna, Ferrara, Modena, Lucca, Milan, Mantua, Como, and Verona.

Italy contains a population of 30,000,000. Before 1859 the country was divided into several independent States, jealous of one another, as already shown; but in that year Victor Emmanuel, King of Sardinia, became the King of all the States (except those of Nice and Savoy, which were ceded to France), and thus there was a united Italy. During the Franco-German War the French troops, who had long occupied Rome to support the temporal power of the Pope, were withdrawn. The Italian troops entered the city in 1870, and, by the declared will of the people, the temporal rule of the Pope was ended and Rome became the capital of the whole country.

Rome, the capital, owes its eminence to its ancient fame, and to its having been the residence of the Pope. Genoa is the most commercial town. Beautiful Naples, another busy city, has the largest population of any in the kingdom. Milan, Turin, Palermo, and Brindisi, besides Genoa, Florence, and Venice, already mentioned, are all important towns with populations ranging between 125 and 260 thousand.

Italian unity is the starting-point of a new industrial career, for the first time really national. Nature, which has given everything to this lovely country, has been thwarted by the ignorance, sloth, and superstition of the people, the result of bad government. Since Italy has become a kingdom the country has made greater progress than during the whole interval since the Middle Ages. Trade with England and France, about equal in amount, is still mainly carried on in the vessels of those countries, but every year Italy is trusting more to her own resources. In Venice the results are not yet so great as in Genoa, which has been already raised to its old prosperity. Mines of iron are now wrought with zeal, machinery is made at home, and in due time the whole of the wants of the country will be supplied by native iron. The Suez Canal, together with the Mont Cenis Tunnel through the Alps, makes Italy the highway of England to India, and promises more than its ancient importance to the port of Brindisi in the

ROME.

south. Agriculture shows signs of improvement in Sicily and Naples. It is more advanced in Lombardy and Tuscany, where the soil, favoured by a perfect system of irrigation, produces the finest and heaviest crops in Europe. Silk is a product of universal culture. The suitability of Italy, into which the industry was introduced sooner than into any other western State, has been proved by its retaining ever since the first rank among silk-producing countries. The future of Italy is bright with hope, but more than one generation must pass away before past evils can be effaced, and before freedom can fully restore the spirit of industry and intelligence.

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hōs'-i-e-ry
prox-im'-i-ty
mar'-vel-lous
in-cor'-por-at-ed
ex-hal-a'-tions
in-tel'-li-gence
es'-senc-es
lac'-quer
al-li'-ance

Op'-u-lence, wealth, riches.
Bane'-ful, harmful.
Por'-phy-ry, a hard richly coloured stone, having large crystals imbedded in the mass.
"**Mos-a'-ic**" **work**, inlaid work in which the effect of painting is produced by small pieces of coloured stone or other hard substance.
A'-la-bas-ter, a variety of soft mineral having the appearance of marble. It is easily carved into vases and other ornaments.

The chief manufactures of Italy are silk, velvet, olive oil, straw-plait, wine, leather, glass, and porcelain.

The chief exports are raw silk, olive oil, fruit (oranges and lemons), fish, sulphur, and marble.

Rome is the capital, but Naples is the largest city (450,000). *Genoa has the most commerce.*

Milan, Turin, Palermo, Florence, and Venice are all large and important towns.

SPAIN AND PORTUGAL.

LESSON XXXVI.

IBERIAN PENINSULA.—PHYSICAL FEATURES, CLIMATE.

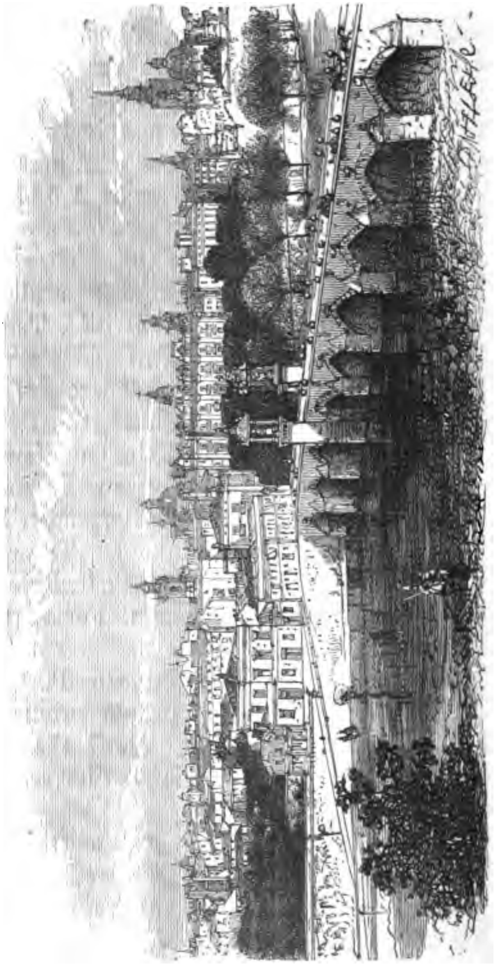
In the south of Europe, separated from southern France by the lofty chain of mountains known as the Pyrenees, there is an almost square peninsula with its eastern shores in the Mediterranean, its western borders in the Atlantic, and the northern fringe in the Bay of Biscay. This is the Iberian Peninsula. It has a coast-line of 2,000 miles—indeed, it is bounded by water on every side, except at the juncture with France, a length of about 300 miles. A narrow strip on the Atlantic side forms the kingdom of Portugal; the remainder (the central part and the eastern side) forms the kingdom of Spain; but a point on the southern coast, Gibraltar, is held as one of the foreign possessions of Great Britain, whence the narrow entrance or strait from the Atlantic to the Mediterranean is guarded and watched. There is no country in Europe (except Switzerland) which possesses such an extent of mountainous surface as Spain and Portugal.

The Pyrenees stretch like a huge rampart or wall along the northern border, so continuously elevated and unbroken that there are only two passes practicable for wheel carriages; but there are many shallower passes, expressively called *portes* (or doorways), being notches seemingly cut in the rocks. These *portes* are about 1,000 feet lower than the mountain summits, and are only practicable for mules and pedestrians. There are four other chains of mountains running parallel to the Pyrenees (the mountains of Castile, Toledo, Sierra Morena, and Sierra Nevada), besides several ranges and groups in other parts. There are five chief river basins—those of the Ebro, the Douro, the Tagus, the Guadalquiver, and the Guadiana.

The islands lying off the Iberian Peninsula belong to Spain, being in the Mediterranean Sea, on the Spanish side of the mainland. These are known as the Balearic Isles, and they include the islands of Ivica, Majorca, Minorca, Formentera, and Cabrera.

Spain is about four times as large as Portugal. It was formerly divided into fourteen provinces; and these divisions were more natural than the more minute forty-nine subdivisions which are now recognised.

The marine borders of Spain are mostly lowlands which slope upward for a short distance inland, and merge into fruitful valleys and highlands that are hidden in foliage of chestnut, hazel, evergreens, and citron groves. The interior of the country consists of a series of plateaux or terraces,



VALENCIA.

separated from one another by lofty and saw-like mountain ridges, the higher peaks of which (over a line 9,000 feet above the sea) are covered with snow. And between these heights are narrow ravines through which the rivers flow to the sea. The soil being exposed to the full influence of the sun, and the moisture being thus absorbed to a great extent, the rivers are scantily supplied with water, and the tablelands are generally bare of trees and vegetation. The rich and varied produce of the country, therefore, is that of the sea-borders—its sheltered parts, valleys, and mountain slopes—but not of the broad plains or tablelands.

Spain is favoured on its borders with conditions that resemble those of many countries in Europe. The exposure of its northern fringe to the Bay of Biscay gives it almost an English character in its produce—in its orchards of apples, pears, and cherries, its green meadows and woodlands, and in respect of its warm climate being tempered by the ocean winds. The southern end of the country, coming within a short distance of northern Africa, partakes (in the provinces of Andalusia and Granada) of an African character; and here the produce is almost tropical, consisting of date-palms, bananas, and the sugar-cane. All along the Mediterranean coast, from Carthagena to Barcelona (both of which cities were anciently among the richest places in the world), the shores have been noted for their valuable produce for more than 3,000 years. The central parts of the country suit the growth of the vine rather than the apple, or the date-palm, the banana, or the sugar-cane.

Although the country is not famed for large quantities of timber, the mountain-sides are, in some districts, clothed with oak trees, notably the cork-oak—the thick bark of which constitutes the cork of commerce—beech, chestnut, and hazel; and at greater heights the pine tree flourishes well. Grain is raised in quantity; indeed, in Andalusia (in the south) crops of wheat are sometimes utterly wasted for want of good roads along which to convey them to port. The country is very rich in various kinds of fruit, apples in the north—where cider is largely made—lemons, oranges, olives, nuts, chestnuts, dates, almonds, gourds, and mulberries, in various parts; and grapes (dried and sugared to make raisins) abound almost everywhere. The people have a strange prejudice against trees, said to be combined with their hatred of the Moors, who delighted in shady groves. It is believed that the bareness of the plains is due to the wanton destruction of the trees by the Spaniards after they had expelled the Moors from the country.

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prac′-tic-a-ble
prĕ′-ju-dice
par′-al-lel
in′-flu-ence
pla-teaux′
junc′-ture

“I-ber′-i-an” Peninsula. So named by the ancient Greeks.

Next to Switzerland, the Iberian Peninsula is the most mountainous country in Europe.

The Pyrenees separate it from France. The other chief mountain ranges all running east and west are the Mountains of Castile, Toledo, Sierra Morena, and Sierra Nevada.

The chief rivers are the Ebro, Tagus, Douro, Guadiana, and Guadalquiver.

Agriculture is the chief source of national wealth in Spain. The products comprise fruits—such as oranges, lemons, olives, nuts, almonds, and grapes—wheat, barley, maize, oats, and rice, with hemp and flax.

LESSON XXXVII.

SPAIN.—PRODUCTIONS.—INDUSTRIES.

SPAIN, from its admirable position and multitude of resources, appeared likely at one time to lead the world in wealth and civilisation. The resources from the animal kingdom do not equal those from plants, but are still of great national value. First amongst the animals is the merino sheep, whose fleece is so fine and highly prized, that it has been sought for by every manufacturing State, and is the origin of the best breeds of wool-producing sheep in England and the colonies, throughout Europe, and also in America. There are about twenty millions of sheep and goats in Spain, and swine are reared in vast herds. Oxen are numerous; and the Andalusian bull is still found wild. While the Moors occupied Spain, they took a pride in their horses, known as Barbs, but the Andalusian horse descended from them is now small and degenerate. Mules and asses, however, are finer than any seen in England, and are as commonly employed as horses are in our country.

The fisheries are valuable. The tunny, a fish of the mackerel tribe, caught for its oil as well as for food, the sardine, reaching us preserved in oil, and the delicate anchovy preserved in brine, are fished for in the Mediterranean, and whole fleets of boats are engaged in the pilchard fishery off the coast of Galicia, at the north-western corner, in the Atlantic.

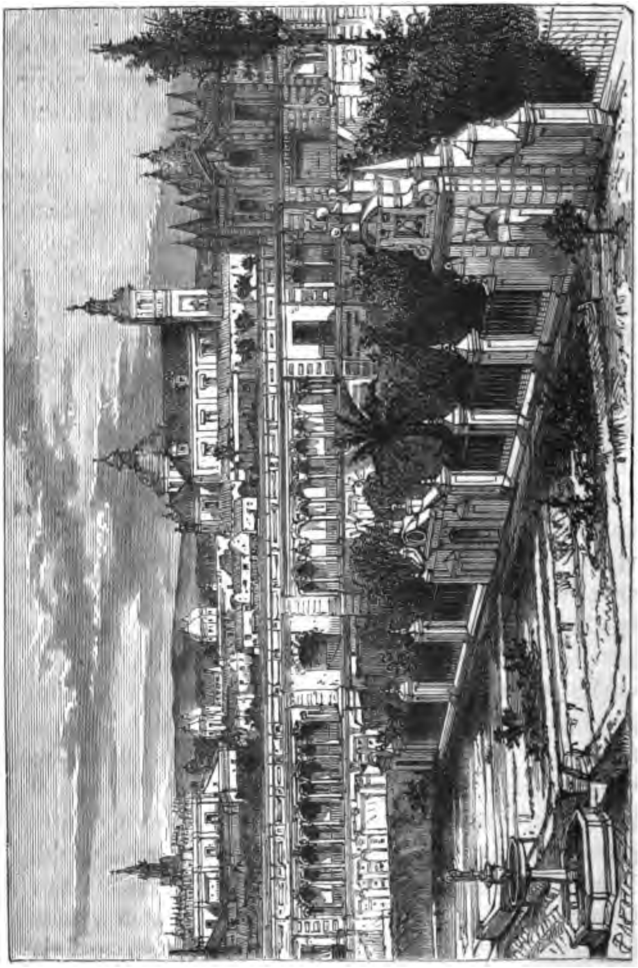
Millions of hives store the honey and wax gathered by the bees from the fragrant flowers of every part of the country. Silkworms are extensively reared for their cocoons, also the cochineal for its brilliant dye.

A few wild animals are still left in Spain: the bear and wolf in the Pyrenees, the wild boar, lynx, marten, and wild cat in the forests and other retired parts; and the only variety of monkey in Europe runs at large on the rock of Gibraltar.

The mineral resources of Spain are rich and varied. Lead occurs in mountain masses enough to supply the whole world for ages, and the produce, obtained without machinery, competes with that of the best worked mines, and supplies nearly half the demand of Europe. At Almaden, in La Mancha, near the centre of the country, there is one of the richest quicksilver mines in the world; and at Cordova, in the south, deposits of cinnabar, or the ore of quicksilver, exist in almost equal abundance. Galicia, in the north-west, supplies most of the cobalt used in Europe. Superior iron is worked in the northern provinces, and tin, copper, and coal could with intelligence and enterprise, which fail in Spain, be made the means of enriching the country. Gold and silver are still produced, but in quantities much reduced from the supplies of ancient days.

Salt beds are met with in the Asturias along the shores of the Bay of Biscay, and exhaustless mines of rock salt in Catalonia in the north-east. All the mountains are quarried for one or other kind of building stone, or marble for statuary. Precious stones are also occasionally met with.

The manufactures of Spain, which in the days of the Moors were the most flourishing in Europe, are now of small value, and confined to a few towns. The famous cordovan leather manufacture, thus named from the seat of the industry, Cordova, the Moorish capital, is quite extinct. It is from this connection of the leather trade with Cordova that we get the term *cordwainer*, a worker in leather, a shoemaker. The temperate provinces of the north contain the chief industrial centres —the seats of iron-smelting, and the preparation of leather. Barcelona is the greatest manufacturing town in Spain, and ranks next to the capital, Madrid, in population. Its chief industries are cotton-spinning, silk-weaving, and paper-making. Silk is also woven in Madrid, Toledo, Granada, and other towns. Barcelona and Bilbao have large iron-works. The tobacco manufacture is kept in the hands of the Crown, and is carried on at seven great factories, of which those



SEVILLE.

of Seville and Madrid are the chief. Wine is the great national manufacture, of which Xeres is the centre, giving its name to the principal export, sherry.

The Spaniards take very little active part in their foreign commerce, which is almost wholly in the hands of the English, French, and Americans, although under more settled government it is gradually improving. Cadiz, almost at the southern point of Spain in the Atlantic and not far from Gibraltar, is the great wine port of Spain. The other ports are—Seville, on the Guadalquiver; Santander and Bilbao, in the Bay of Biscay; Barcelona, Valencia, Alicante, Carthagena, and Malaga, on the Mediterranean. England buys much of the mineral produce, nearly all the wool, and the best wines. The imports consist of British and foreign manufactures, colonial produce, salted and dried fish. The foreign commerce of Spain is hampered by excessive duties, which raise the price of every useful commodity to the people, and prohibit the use of many of them to the poor, while they encourage smuggling almost beyond belief, through Gibraltar and Portugal and wherever an opening allows of it on the rocky northern coast. It is thought that at least 100,000 smugglers thus make their livelihood in defiance of the law. There is comparatively little inland traffic owing to the badness or total lack of roads, but with the introduction of railways this evil seems to be in a fair way of being reduced.

co-coon'	**ad'-mir-a-ble**	**cord-o'-van**
cin'-na-bar	**in-tel'-li-gence**	**cord-wain-er**

De-gen'-er-ate, fallen to a lower state.

Spain has an area rather more than twice as large as that of Great Britain. Its population is about 16 *millions.*

Of the domestic animals of Spain, the merino sheep is remarkable for the fineness of its wool.

The tunny, sardine, and anchovy are the principal fish caught in the neighbouring seas; and honey, silk, and cochineal are important products of the animal kingdom.

Spain is very rich in minerals, especially in lead, copper, quicksilver, and tin, of which great quantities are exported.

Barcelona is the greatest manufacturing town in Spain, and in population ranks next to Madrid, the capital. Its chief industries are cotton-spinning, silk-weaving, and paper-making. Silk is also woven in Madrid, Toledo, Granada, and other towns. Barcelona and Bilbao have large iron-works.

The chief sea-ports of Spain are Barcelona, Cadiz, Seville, Valencia, Carthagena (the chief naval port), and Malaga. Madrid is the centre of the internal trade. The chief articles of export are wine, silk, metals, green and dried fruits, olive oil, wool, and cork.

LESSON XXXVIII.

SPAIN.—RACE.—HISTORY.

SPANIARDS differ much in manners and customs, in character and in dialect, in feeling and interest, according to their locality; and these differences are intensified between them and their neighbours the Portuguese. Both nations, though of mixed origin, are reckoned as belonging to the "Latin race," and their language is derived from the Latin, though modified and enriched with Gothic and

Arabic idioms. Besides the Spaniards of pure blue, or Gothic blood, there is a caste of mixed or black blood, descended from the Moors, and these are despised as an inferior race.

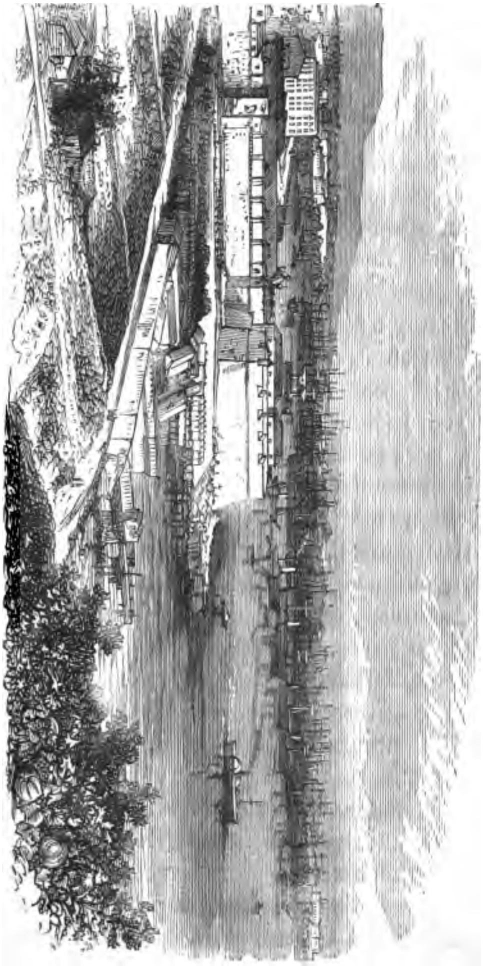
About 50,000 Moors now represent the ancient conquerors of Spain in the southern provinces; and more than as many Gitanos, or Gipsies, form a race apart, dispersed over the whole country, although they live in settled habitations, and are not nomadic or wandering like their tribe generally. Provincial characteristics are vividly marked. Castilian pride and reserve contrast with the vivacity of Andalusia; the indolence and vanity of Estramadura, with the industry and honesty of the Galicians; the listless but suspicious Murcian, with the fiery but generous Biscayan, or the enterprising Catalan.

Spain and Portugal are closely allied in lineage, religion, country, character, and fortune, yet they have hated each other, and the desire to outdo each other has been their chief incentive to action. From about A.D. 1250 to 1600 they occupied a great position in the world. But yielding to indolence, bigotry, and superstition, they have fallen behind, and have nothing like the influence which from the position of the two countries might be expected.

During the dark ages industry and commerce were in the hands of the Moors and of the Jews, and centred in Barcelona. When the Moors were defeated and driven from Spain to a number approaching a million the greater part of the productive industry went with them.

In the fifteenth century Spain and Portugal rivalled each other in maritime enterprise. Vasco de Gama's voyage to India incited Spain in 1492 to send Columbus and afterwards Magellan to speed upon their missions into the unknown western ocean. Vast numbers of the people left Spain for the gold-fields of America, and the remaining industry became quite destroyed by the loss of its only active followers. A desire to get all the gold in existence, and a resolve to stop heresy by moulding every man's belief upon that of Rome, soon arrested progress at home, and made enemies abroad. America was made a mining rather than a trading possession, and though colonies spread through Mexico, the West Indies, and the half of South America, the rich mines of the New World led Spain to neglect those at home. The Spaniards grew so eager for gold and silver, that they paid no regard to any other commerce; and as soon as their galleons or treasure ships reached home much of the store had to be parted with at once to the Dutch and the northern trading nations, in exchange for articles of food, clothing, and the common necessaries of life.

More of the precious metals came into Spain in a hundred years than the world had ever before known, yet left the country at the end of that time with its coffers emptied, its commerce crippled, its navy destroyed, and its people sunk in debt,



BARCELONA FROM THE HARBOUR.

ignorance and sloth. War of sixty years' duration with the Dutch, and attempts upon England, led to swarms of pirates and smugglers making prizes of the galleons, and attacking Spain in her colonies, while Philip III. at the beginning of the seventeenth century closed his harbours and put an end to trade. It was reckoned that 200,000 acres of land had gone out of cultivation before the year 1800, and as much more was left wild by the monks, its owners. Towns, once the scene of busy life, were empty of citizens; and a country whose people proudly boasted that "When Spain was angry the whole world trembled," lost its rank, which it has never recovered, as one of the Great Powers of Europe.

The laws seemed as if meant to check rather than to foster the public good. A strict system of entail kept the land always in the same hands. An institution called the Mesta, consisting of sheep farmers, claimed the right of pasturage over the whole country, and of turning arable land anywhere into grass. The members, who were all of high rank, further had a right of way, 240 feet wide, through any farm, for their flocks, to and from the uplands. No land once brought to pasture could be again ploughed up without their leave. It was said that the sheep consumed the Spaniards, and not the Spaniards the sheep.

The government, until recently, has been unsettled. It is now less despotic, with a parliament called the Cortes. Canals have been opened, highways made, and railroads introduced; and under Alphonso, the present King, Spain appears to have a little prospect of recovering somewhat of her old position amongst the nations of Europe.

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con'-quer-ors
no-mad'-ic
in'-dol-ence
in-tens'-i-fi-ed
su-per-sti'-tious
nĕ'-ces-sa-ries
su-spic'-i-ous
gal-le'-ons
smug'-glers

En-tail', a custom by which land is prevented from being sold by the present possessor, in order that it may be handed on to the next heir, and so kept in the family.

Spaniards are reckoned as belonging to the Latin race, because their language comes chiefly from the Latin; but they are of mixed origin, partly Gothic.

The Moors at one time were masters of Spain. Now there are only 50,000 *of them in the country.*

The period of Spanish power was between A.D. 1250 *and* 1600. *During this time America was discovered, and greed for gold did great mischief to Spanish commerce and trade.*

Bigotry also, and superstition, shut up the minds of the people against modern progress in knowledge. And so they lost their proper place in the world.

LESSON XXXIX.

PORTUGAL.—PHYSICAL FEATURES.—CLIMATE.—INDUSTRIES.

PORTUGAL, deriving its name from Porto Callo, the former designation of Oporto, is the most westerly kingdom of Europe, and part of the great Iberian peninsula. It is a small State, about two-thirds the size of England, having a superficial area of 34,500 miles, and a population of about 5,000,000 souls. The coast-line, 500 miles long, consists, in turn, of cliff and low sandy shores. The cliffs consist of the sloping ends of the parallel mountain chains that traverse the peninsula from east to west, called "sierras" in Spain, and "serras" in Portugal: The low grounds form the shore ends of the river basins between those mountains. The rivers at their mouths provide several good harbours, those of Lisbon, the capital, on the Tagus, and of Oporto, on the Douro, being the centres of nearly all the trade. Some share of commerce is, however, obtained by the port of Setuval, in the bay of the same name, and by Villa Reale. The coast also projects in several bold capes. The chief are Rocca, near Lisbon, the most westerly point of Europe, and St. Vincent. The latter is notable in English history for the victory of Sir John Jervis, afterwards Earl St. Vincent, over the Spanish fleet in 1797, and for the less important engagements of Admiral Rodney in 1780, and Admiral Rooke in 1693.

The climate of Portugal, influenced by the prevalent westerly winds, is generally mild and equable, and subject to rains in winter and spring. The air is clear, pure, and salubrious. Harvest begins at midsummer, and for a month or two tropical heats set in, scorch the lowlands, and wither vegetation, a cool temperature being found only on the mountain heights. Flowers and fruits shoot forth anew in the autumn, and the meadows again become verdant as in early spring. The soil is more fertile than that of Spain. The sandy wastes, called Parameras, of which some of the tablelands of the peninsula consist, do not extend much into Portugal, but the objects of culture are few. The rivers also, having their lower reaches in Portugal, are more useful in the latter country from their greater body of water, most of them being navigable only a short part of their course. At Lisbon, for example, the Tagus is seven miles wide.

The summits of the mountains are snow-clad, and piercing winds prevail upon them ; but the rivers are seldom frozen, and snow remains in the valleys only a short time, sometimes not being seen for five or six years.

The chief products that create trade are grapes for wine, largely for English consumption, the wine being called Port, from Oporto, its place of shipment. The vineyards whence it comes are situated along the windings of the Upper Douro. Another choice wine is named after the capital, Lisbon. Melons are cultivated for food, together with large quantities of figs, almonds, oranges, lemons, and the citron tribe in general. Portugal is indeed the home of fruits. Both temperate and tropical grains are raised, but not enough for the consumption of the people, who have to import corn. Forests of chestnuts and hazel aid in supplying the Portuguese with food. Besides these resources, hemp and flax are grown for their fibres, seeds, and oil.

Mules, oxen, and asses, as in Spain, are reared as beasts of burden. Sheep and swine are numerous, and the seas swarm with fish.

The mineral resources of Portugal are greater than the produce realised would indicate; the mining, like the agricultural industry, being in a low condition. Marbles, alabaster, jaspers, and granite enrich the mountains. Precious stones are not scarce; and gold and silver mines, worked in former ages by the Carthaginians, though abandoned, are not exhausted. All the useful metals are to be found, and coal for their working exists near Oporto. Salt is obtained by evaporation in brine pans along the coast, in the neighbourhood of Setuval Bay.

Notwithstanding these many advantages, the manufactures, with the sole exception of wine, are depressed, and handicrafts remain in a rude state. Linen is woven in many towns, and silk, woollen, and cotton goods are made to some extent, the latter principally at Oporto and Lisbon. Commerce, too, is almost wholly in the hands of the English, who take nearly all the wines and fruits. In a much smaller degree, Brazil, until 1824, a Portuguese possession, but now an independent empire, shares in the foreign commerce. Lisbon, the capital, and Oporto, are at once the largest sea-ports and the chief trading towns; but it is only in recent years that direct communication has been made between these towns, and inland intercourse is still greatly hindered by the condition of the roads, along which even the heavy and lumbering ox-cart finds it difficult to travel. There are no canals, and hardly any bridges; but several hundred miles of railway, constructed of late years, have much improved the transit of goods, and given an impetus to industry.

Portugal exports wines and fruits, which, to the countries receiving them, are amongst the luxuries of life, and receives in exchange from her customers, who have abundance and to spare, the real necessaries, of which through bad management she stands so much in need.

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dĕ-sig-na'-tion
su-per-fic'-ial
in'-flu-enc-ed
ca-pric'-i-ous-ly
prĕ'-va-lent
con-sump'-tion

Portugal has an area a little larger, and a population rather less, than those of Ireland. On the west side it faces the Atlantic; and Cape Rocca, near Lisbon, is the most westerly point of Europe.

Owing to the prevalence of westerly winds from the Atlantic, the climate of Portugal is generally mild and equable; but July and August are usually very hot months.

The chief vegetable productions are grapes—for the manufacture of wine—and other sub-tropical fruits. Corn, maize, wheat, and barley are grown, but not in sufficient quantity to supply the inhabitants, who have to import grain.

The mining industry of Portugal is not in a flourishing state, but salt is obtained in large quantities from the coast lagoons.

Manufactures, too, except in the case of wine, remain in a primitive condition.

The commerce of Portugal is mostly in the hands of the English. Lisbon and Oporto are the chief ports. The chief exports are wine, fruits, oil, and salt.

LESSON XL.

PORTUGAL.—HISTORY.—GOVERNMENT.

THE Portuguese are closely allied to the Spaniards in race and language. The best period of the country, the era of greatest enterprise and power, was during the fifteenth and sixteenth centuries. Prince Henry, the navigator, with a passion for maritime discovery, in 1406 took up his abode on a height near Cape St. Vincent, the south-western point of the kingdom, in order that he might obtain the first and last sight of the sails spread on his varied missions. During his long reign of nearly sixty years he was rewarded with the discovery of the Madeira and Canary Islands, as well as the Azores and Cape Verde Islands; and, though his commanders never touched the equator, they annexed much of the west coast of Africa, and brought therefrom gold, ivory, and cotton.

A burning desire, even thus early, animated mariners to find a sea path to India. At length the equator was crossed, and the awe-struck adventurers found themselves sailing under a new firmament, lighted by the splendours of the southern cross and hosts of strange stars. Creeping on from cape to cape, in hope of reaching the end of Africa, Bartholomew Diaz, in 1486, was dismayed, after losing his course through rough weather, to find the land trending north. Without knowing it, he had doubled the Cape. He named it the Cape of Storms; but the King, with the idea in view of reaching India, changed it to that of Good Hope. Ten years later the problem of a new route was solved by Vasco de Gama. The Portuguese raised their flag at Calicut in India, and Lisbon grew into a wealthy emporium of eastern silks, cottons, spices, and pearls, ivory and gold dust, sugar and wine; and the merchants of the northern States resorted there for costly freights, to distribute in their own lands, For nearly a century Portugal was paramount in India. No vessels but theirs were allowed in the Indian Ocean; and their influence was felt from the Cape of Good Hope to China and Japan.

From 1580 to 1640, Portugal, through the power of Philip II. of Spain, was forced into union with that country, and involved in its wars with Holland. In the meanwhile the misuse of their wealth had encouraged all the vices of bigotry, pride, and sloth; and while every State in Europe was enriched with their gold and silver, the owners of the trade to India, like the conquerors of Mexico and Peru, were bankrupt and demoralised. Petty and absurd laws, of the most selfish character, framed to keep the precious metals in their own country, failed of any effect except to encourage smuggling and to hasten the national ruin. The mutual aversion between the Portuguese and Spaniards was increased by the envy each felt for the line of trade the other pursued, both coveting exclusive profits. The Dutch, in the end, wrested from the Portuguese the whole of their Indian trade, and even took Brazil, which had only recently been colonised. Then, while Portugal looked passively on, and saw her industries languish and her soil remain untilled, England secured the home commerce, and retains it to the present day, even to such an extent that the business firms in Portugal itself are many of them English.

Brazil was restored by the Dutch to Portugal, and retained till the year 1824. As a colony it was an important source of revenue to the mother country, chiefly from the profits of its sugar plantations. This came to an end when the Emperor Napoleon took possession of Portugal, for refusing to seize the English merchandise then in the ports. The royal family fled to Brazil and settled; and afterwards another sovereign was placed on the throne of Portugal. The independence of Brazil was a serious blow to the fortunes of Portugal, for its claims to the whole commerce of that grand territory were, for ever, set aside.

Since the civil wars have been ended, and the government has been more settled, the progress of the country is perceptible, though slow. Intolerant laws keep back every form of industry, and drive many of the wealthiest citizens out of the land, to live abroad in peace and enjoyment. The colonies are in the same exhausted state as the mother country. Portugal proudly declined to sell to England the petty relics of settlements retained in the east, though her intercourse with them is insignificant. The government now is a limited monarchy. The national assembly is called the Cortes, consisting of two houses, Peers and Deputies.

firm'-a-ment
em-por'-i-um
per-cept'-i-ble
splen'-dours
ex-as'-per-ate
wrest'-ed
big'-ot-ry
a-ver'-sion
tol'-er-ant

The Portuguese are akin to the Spaniards, but through old rivalries they are hostile to one another.

Portuguese navigators discovered Madeira and other Atlantic islands, also the Cape of Good Hope and Brazil.

Brazil is now an independent empire.

Like Spain, Portugal has lost position through mistaken notions about gold, and also through bigotry and prejudice.

SWEDEN AND NORWAY.

LESSON XLI.

SCANDINAVIA.—PHYSICAL FEATURES.

THERE lies at the north-western end of the mainland of Europe a peninsula stretching 1,200 miles in length, and having a breadth of nearly 500 miles at its southern and widest part. It is bounded by the Arctic Ocean and the North Sea on the north and west, and by the Baltic Sea on the southern and most of the eastern margin. This peninsula has an area of nearly 300,000 square miles. From the North Cape, at its northern end, a range of mountains runs the greater part of its length—referred to in Lesson II. as the Scandinavian Range. The mountains do not strike exactly along the middle of the peninsula, but rather nearer the western than the eastern side, so that the slope towards the Arctic Ocean is much narrower than the one towards the Baltic Sea.

This mountain range forms a watershed between east and west. And this high ridge also divides the peninsula (for the most part) into two separate countries, the larger one on the Baltic side being called *Sweden,* and the smaller one on the Ocean side being known as *Norway.* Norway occupies about two-fifths, Sweden nearly three-fifths, of the whole. The southern and broader end of the peninsula is divided into two wide rounded tongues of land, one of them belonging to Norway, the other to Sweden. At the Norway end the mountain range just described broadens out into a great tableland. The tongue of land on the Swedish or eastern side stretches much further south, and is generally flat and studded with vast lakes.

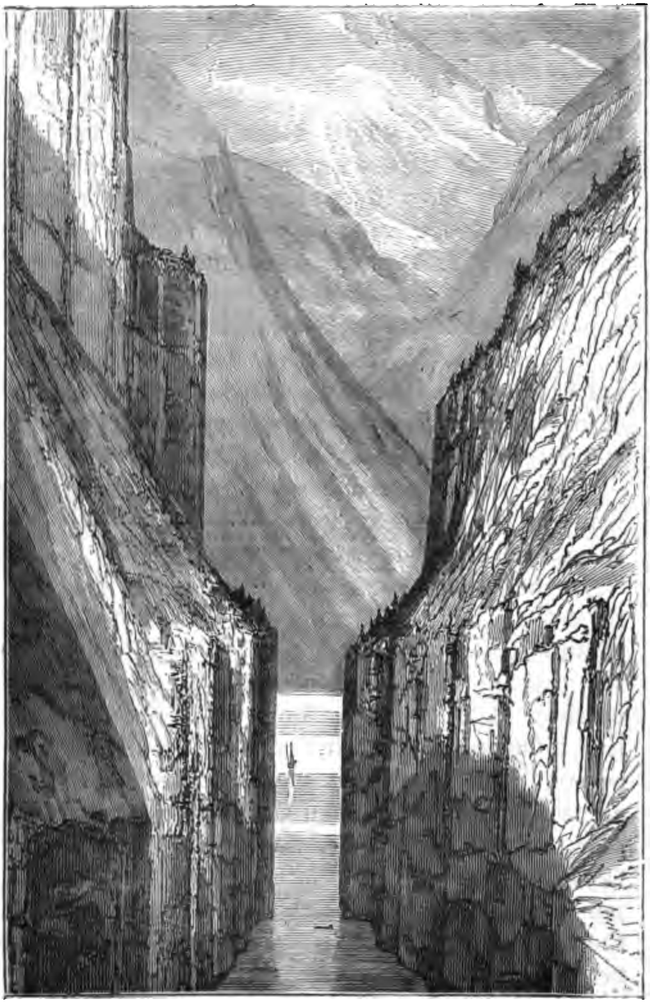
Many of the mountain tops are always clothed with snow, but in these cold northern latitudes the snow-line is not very high. In the southern part of Norway it is about 6,000 feet. The greatest width of the central range does not exceed 100 miles, except where it widens into the tablelands of Southern Norway. For most of its course it is less than half that width.

Sweden consists largely of a succession of parallel valleys running from the great mountain range to the Baltic. These valleys are divided by spurs thrown off from the main range. The rivers which flow along their uneven beds often leap in grand cascades a depth of more than 1,000 feet. The Glommen, the largest of these rivers, lies wholly in Norway. The Tornea, the most northern, flows from the northern end of the mountain range southward to the head of the Baltic, and, together with the Muonio, a tributary, divides Sweden from Russia. Few countries in the world are better watered than Sweden and Norway, and few boast of more lakes; but the rivers are rapid and shallow, and full of cascades, and are only available, in a commercial point of view, for mill-turning and for floating timber from the forests to the sea.

Sweden, in its central region, supplies an abundance of the best iron in the world. This iron, smelted with wood fuel from the fine timber forests, yields a better steel for cutlery than is known in any other country. Coal is found in a few places, and gold and silver to a small extent. Copper, lead, and plumbago are also among the mineral treasures, as well as millstones, whetstones, and clay for pottery.

The coast of *Norway* is bordered with myriads of islands, whose numbers have probably never been counted. Some are so huge as to be taken for part of the mainland; others so small as to seem like castles floating on the sea. And on many of them there are small houses, quaint, gable-ended, wooden, and tile-roofed, in the midst of small patches of verdure, and often perched upon the naked rock. Islands are scattered everywhere; indeed, it is almost impossible to tell where the mainland begins, and where the island-world ends. And the sky-piercing mountains on the shore smile or frown—according to the state oi the weather—over all; for when the brilliant sun lights up the snow-capped peaks they may be said to smile, and when storms turn them to a leaden grey hue, they seem to frown and look dismal.

Through this island-world, we may sail until the great mountain ranges of the interior become



FIORD IN NORWAY.

clearly visible. There are deep fissures called *fiords*, or, as we say, "firths" or "friths," which appear as though deep gashes had been cut from the summit of the high rocks down to the sea, making canals with steep rocky walls. Some of these fiords have huge glaciers, or ice rivers, measuring several miles in extent, at the head of the fissure. And so mazy and numerous are the smaller fiords, and dark friths and channels and gaps, in which traffic is carried on with native boats and barges, that they have rarely been entered by travellers. They often lead to wild places occupied by native fishermen and small farmers who have never seen a foreigner in their lives.

Like Sweden, this country is rich in minerals; many of the mines are open to the sky, and iron is quarried after the manner of stone.

In the fishing season, there are scenes of wonderful activity on the Norwegian coast, more than 20,000 fishers (men and boys) being busy with the capture of salmon and cod, and shoals of herring. The winter is long, but, on account of the influence of the Gulf Stream, not generally severe. The summer is short and hot; and the climate is more moist than that of Sweden, as the damp winds from the Atlantic and the Arctic Ocean frequently break into rain on the mountains, before they can reach the Swedish side of the range. The winter season is cheered by the brightness of the Aurora Borealis, or northern lights, and is changed to summer so rapidly that the ice and snow melt as if touched by a fairy wand. Two or three days suffice to change the seasons; the leaves burst forth almost at once; the soil is quickly clad with myriads of flowers; nature suddenly wakes to a joyous life; the musical whirr of thousands of saw-mills for the cutting of timber is started by the mountain streams formed by the melting snows; and grain requires but two months to be sown, ripened, reaped, and housed.

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whet'-stones
myr'-i-ads
as-cer-tain'-ed
for'-eign-er
glac'-i-ers
pierc'-ing

The peninsula of Scandinavia includes the kingdoms of Sweden and Norway, separated, for the most part by a long chain of mountains—the Scandinavian Range. The area of the peninsula is about five times that of England and Wales, of which Sweden occupies three parts and Norway two. Scandinavia is a well watered country. The principal rivers are the Glommen in Norway, the Klar Elv, flowing into Lake Wener, and the Dal Elv, Indal Elv, Angerman Elv, Umea, Pitea, Lulea, Tornea, and numerous others all emptying their waters into the Baltic Sea and the Gulf of Bothnia. The chief lakes are Wener and Wetter, both in Sweden.

The coast of Norway is very much broken and indented, and bordered by innumerable rocky islets.

LESSON XLII.

SCANDINAVIA.—NATURAL PRODUCTIONS.—INDUSTRIES.

THE vegetable produce of Scandinavia in many respects resembles that of Britain. Scarcely more than a tenth of the surface is free from forest trees, and timber forms one of the great elements of national wealth, and would be of far greater value if communication were easier. The chief trees are beech, oak, maple, spruce fir, Scotch fir, pine, aspen, willow, ash, hazel, and birch. They supply the chief fuel, as well as pitch, tar, resin, and turpentine ; but are of little commercial value except where the larger streams or the floods, at the breaking up of the frost, are available to float the felled timber down to the sea. Arable land is oftentimes nothing more than small clearings in the forest, but some of it is remarkably fertile. Grapes, melons, mulberries, sweet chestnuts, walnuts, apples, pears, plums, and cherries ripen in some parts of the south, owing to the great heat of the short summer. Gooseberries, whortleberries, and other fruits of the kind grow further north, and attain an excellent flavour. Wheat and hops do not ripen further north than the southern end of the central range ; oats succeed a little further north, and rye as far as the head of the Baltic. Indeed, barley and rye give good crops, about one year in four, nearly to the northern extremity of the peninsula. Flax and hemp are objects of culture, and potatoes succeed at the North Cape. Yet not more than a hundredth part of Norway, and twice as much of Sweden, are cultivated at all. Grain is greatly used for distilling, which industry forms a part of every farmer's occupation; the refuse from his still enabling him to feed his cattle, and to add to the manure for his fields. The introduction of the potato has allowed the Swedes to store their grain crops, and even to spare corn for Norway.

More than three-fourths of the population are engaged in agricultural pursuits. The rigour of the climate limits the number of animals, as food cannot be provided for them during the long winter. Horses and cattle are numerous in the south, the former small, active, hardy, and sure-footed, the latter also small, but supplying good milk and beef. The sheep are of inferior breeds, but are being improved by the introduction of superior animals from other countries. Towards the north their place is taken by the goat. Swine, as may be inferred from the amount of forest land, are very numerous. In the extreme north dogs are used as beasts of burden, and the reindeer combines in itself the useful qualities of all the chief domestic quadrupeds. Its food is Iceland moss, which it seeks for and finds in abundance, by shovelling away the snow-covering by means of its broad expanding antlers.

Birds are innumerable, supplying flesh, eggs, feathers, eider-down, and quills. Many of the islands are exclusively the homes of fowlers and fishermen, who find endless and daring employment in scaling the rocky heights to rob the nests of the eider duck, and in catching the fish that swarm in the fiords and seas. Salmon are the most valuable of the river fish, and the *strœming* of the

Baltic, of the size of the sprat, but more delicate, is the object of a large trade. The herring, cod, and lobster fisheries are so productive as to create a profitable foreign commerce.

Norway must be a commercial nation by the decree of nature ; Sweden less so. Except where the mines bring the people together at a few places inland, all the Norwegian towns lie on the coast. Bergen, the oldest and most important, was once one of the Hanse towns. Few manufactures on a large scale are carried on in either kingdom. Linen and woollen cloths are woven in every house of the peasantry, although the members of each family are engaged in agricultural pursuits. Ship-building materials are so cheap that the trade creates much activity in the Baltic harbours. Norway ice has within the last generation become an important item of export, for which England is the chief customer. In like manner within the last twenty years Sweden has so much increased her trade in firewood and deals for joinery, that it is now larger than that of Canada.

Sweden and Norway trade chiefly with the United Kingdom. Stockholm, the capital, and Gothenburg are the commercial ports of Sweden ; those of Norway are Christiania, the modern capital, Trondjhem, the old capital, and Bergen, a large port in a bay bounded by rocks, except where it opens to the sea. The shipping trade has advanced faster in Norway than in Sweden, while agriculture and manufactures have assumed the largest proportions in Sweden. Within the last generation the wealth of both kingdoms has rapidly increased; but the population has not kept pace with it, owing to emigration to the United States, which has gone on during the same interval on a very large scale; and the two countries remain the most thinly peopled of all the European States. The means of intercourse in Norway leave many parts of the country difficult of access. There are, however, excellent post-roads between the chief centres, such as Christiania, Bergen, and Trondhjem. In Sweden the roads are more numerous, and there are several canals, of which the Gotha canal is unexcelled, one part of it, a mile long, being cut out of the solid rock. Railways quite lately have been introduced into both countries.

The exports from Norway consist of timber, fish (fresh and salt), cod-liver oil, ice, iron (mostly in bars), zinc, copper, tar, pitch, and furs; while, in addition, Sweden exports ships, cereals, and wool, cattle, butter, paper, and matches. The imports comprise grain, dairy produce, animal food, wines, brandy, coal, salt, colonial produce, tobacco, hides, woven textures, and other manufactured goods. Norway depends upon Sweden for wheat. The commerce of the peninsula is in a thriving condition, but Sweden takes the greater share.

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ex'-cel-lent
dis-til'-ling
shov'-el-ing
gran'-ar-ies
re-vers'-ed
ce'-re-als
pur-suits'
rein'-deer
ei'-der

Nine-tenths of the surface of Scandinavia is covered with forest, and hence the trade in timber, tar, pitch, resin, and turpentine is very extensive. Wheat is grown in sufficient quantities in Sweden to supply the deficiency in Norway. Iron, copper, and silver are widely distributed in Scandinavia. The iron-mines of Sweden yield iron from which the finest steel is made.

The fisheries of Norway, especially those of herrings, cod, and lobster, are extensive and valuable, yielding vast quantities for export as well as for home consumption.

The chief exports are timber, fish, iron, and copper.

LESSON XLIII.

SCANDINAVIA.—PEOPLE.—HISTORY.—GOVERNMENT.—CUSTOMS.

THE character of the Norwegians is formed by their maritime and rocky home. Fowling, fishing, wood-cutting, and mining—all involving danger—have given the people a fearless and adventurous disposition. The energy and love of the sea, which led "the hardy Norseman" a thousand years ago to make piratical descents upon the coasts of Europe, now impel him to a peaceful invasion of the same parts with cargoes of timber and fish. The famous race of the Normans, who settled in the north of France and afterwards conquered England, came originally from Norway.

The Swedes are a branch of the same race, speaking a dialect of the old Norse, but with considerable differences in appearance and character. Laplanders, a short swarthy people, descended from one of the most ancient races of Europe, inhabit Lapland, a district in the north of Sweden; and adjoining them, along the Baltic, are the Finlanders, who inhabit the district called Finland. Both Lapps and Finns are short, differing greatly in stature, robustness, and industrious habits from the Swedes and Norwegians, who are tall and well made. Neither the Lapps nor the Finns belong to the Caucasian, or Aryan race.

The history of the Scandinavians is deeply interesting from its early influence upon the fortunes of the other maritime States of Europe. The poverty of their own country drove them to seek riches on the sea, and they had not yet learned an honest way of doing this. The men who sailed on these expeditions were called "*vikingr*," * that is "sons of the fiord," and the name grew so famous that people have supposed it meant sea-kings, which, however, is not correct. Their fearless intrepidity made them the scourges of the coast from Iceland (an island in the Arctic Ocean) as far south as Sicily.

Norway became united in 1380 to a country a little further south, known as Denmark; and in 1397 the whole Scandinavian race owned one sovereign. Norway was dismembered from Denmark at the partition of Europe after the fall of Napoleon, in 1814; being then transferred to Sweden, without regard to the wishes of the people or the claims of Denmark, to compensate the Swedes for the loss of Pomerania, which Prussia required them to give up. The only bond of union between the two States is that of having the same Sovereign, each State keeping its old laws and legislature. Norway, in the management of its own affairs, is one of the freest kingdoms in Europe. Under Denmark the people had been badly governed, though not so badly as the Icelanders; but recent good government has tended to do away with the rivalry and enmity formerly existing between the conjoint States. Formerly this feeling was as strong in its way as that which has always prevailed between Portugal and Spain. Religious liberty has, however, been at a lower standard than civil liberty, and it is only since 1840 that a Jew has been allowed to set foot in Norway. The blending of the people of the two States is still far from complete. Norwegian money is not a legal tender in Sweden, nor the Swedish in Norway. Sweden has been ambitious of military glory, which under Gustavus Vasa, and Adolphus, and Charles XII. it certainly won. Its victories have been always by land, not by sea. Norway, on the other hand, has ever been a commercial nation, and to this day conducts much of the carrying trade of the Mediterranean.

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* Norse plural of viking.

The political divisions of Sweden are the three regions of Gothland in the south, Swealand, or Sweden proper, in the centre, and Norrland, or Northland. These are further divided into governments, of which there are twenty-four. In like manner Norway comprises three provinces which are subdivided into twenty governments. The capital and chief port of Sweden, Stockholm, in Gothland, is built partly upon islands, and from its romantic position amid the waters it has been designated the Venice of the North. Upsala is a university town, the fame of which is identified with Linnæus, the celebrated naturalist, who was professor there.

The capital of Norway, Christiania, is named after one of its kings. The ancient capital, and still the place of the coronation of the kings, is Trondhjem (or Drontheim), situated on a deep fiord of the same name on the rugged western coast.

Notwithstanding the advances which Sweden and Norway have made, the people—even the nobles—are comparatively poor. State aid has been necessary, for a long while, to promote agricultural and manufacturing industry, towards which the ruling princes have always been generous benefactors. Many of the nobles have sold their estates, having no capital to expend upon their improvement. Feudalism, or dependence upon the lords of the land, has never prevailed in Scandinavia; but the land is divided amongst peasant proprietors, holding usually from 200 to 300 acres. They claim the privilege of pasture on the mountains in summer by what is called *udal* right. This they have by popular custom, as distinguished from *feudal* right, conferred by an overlord. The same claim is also common in the Orkney and Shetland Islands. There also Udallers have never owned a superior lord, and maintain their claims not by any deed or charter, but simply on the ground of common tradition and custom.

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pir-at'-i-cal
ac-cord'-ance
amb-i'-ti-ous
mĭ'-lit-a-ry
ad-ven'-tur-ous
o-rig'-in-al-ly
in-trep-id'-i-ty
lĕ'-gis-lat'-ure
bĕ-ne-fac'-tors
mar'-i-time
ri'-val-ry
pro-fess'-or

The chief towns of Sweden are Stockholm, the capital and chief port, Gothenburg, an important port on the Cattegat, Malino, on the Sound, busy in exporting corn, and Upsala, noted for its university.

In Norway, Christiania is the capital and seat of government, but Bergen is the largest port. Trondhjem, the ancient capital, exports fish, timber, and copper, and Drammen is the chief timber port.

The Norse have a famous place in history. They were masters of the northern seas; they conquered Normandy, and gave to England its royal race.

DENMARK.

LESSON XLIV.

GENERAL.

DENMARK, the land of the Danes, has been shorn, within the present century, of its former power and territory, but remains interesting both historically and in its physical features. Previous to 1815, as already mentioned, it comprised Norway and Sweden; but at the settlement of Europe, after Napoleon's downfall, these kingdoms were separated under an independent king, and quite recently its fairest German provinces of Schleswig-Holstein have been taken by Prussia. The kingdom now consists of the northern and poorest part of the peninsula—Jutland—and the islands of Zealand, Fünen, Laaland, Falster, and Bornholm, having in all an area of 14,500 square miles.

The peninsula is peculiar in pointing northward, a direction opposite to that of almost all the other peninsulas of the world. It differs from them also in soil, being alluvial, or deposited by the sea, while most promontories are rocky.

The country forms part of the great central plain of Europe, and though in its widest part it is 180 miles across, yet so irregular is the coast made by the deep fiords or inlets, particularly the fiord which nearly severs Jutland, that no part of the country is more than thirty-five miles from the sea. There is almost an entire absence of hills, rivers, lakes, forests, wild animals, and minerals. In the larger islands, however, a few elevations appear, but do not approach to mountain heights. The soil is poor, and at least a quarter of the country is waste, heath, marsh, and sand. The bogs, however, supply turf for fuel in such quantities that the want of coal is not felt. Autumn is the only settled season, winter being varied by alternate snow and rain, and the spring by mists, frosts, and storms. Foggy skies prevail even in summer, though more readily dispersed by the winds. The Sound is seldom ice-bound, even when the Baltic is closed for shipping; but at times it forms a frozen highway to Sweden. Still the climate is insular, not extreme, and, being open to the warming influence of the Gulf Stream, is mild for the latitude.

In most respects Denmark resembles Holland.* Embankments are needed along the low-lying eastern shores, to resist—not always successfully—the inroads of the sea; and the western coast, equally low, is protected naturally by snow-white sand dunes which line the shores, and are constantly encroaching on the arable land.

Where, then, we may ask, are the natural resources to support a population of a million and a half of people? The history of an ancient people, and the site of the country, supply an answer. The people (called Danes) are of the hardy Scandinavian race, who, under their vikings, made the sea their country and their ships their home, and ravaged the shores of ancient Britain and Gaul. Bounded by the Baltic and its channels on the east, the Skager Rack and Cattegat on the north, and the German Ocean on the west, the Danes are familiar with the sea from infancy, and are born mariners. They pursued, in early times, a lawless life at sea, but afterwards settled down to peaceful commerce. A relic of Danish supremacy at sea remained till 1857 in the Sound Dues, enforced from every vessel entering the Baltic—a right which had been allowed for five hundred years, to meet the cost of keeping up the lighthouses. The United States first declined to pay, and the dues were bought out for a lump sum by the mercantile States, England's share being £1,125,206, which she paid at once.

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* See next Lesson.

Manufactures must be unimportant in this country without coal, iron, or water power, and its home industries can only find scope in agriculture for commercial exchange. Of these butter, corn, meal, rape-seed, oilcake, cattle, and hides, are sent out from Copenhagen, the capital and chief port, on the island of Zealand; and manufactured goods, iron, hardware, coal, salt, colonial produce, and wine are brought back in return. It is from the vegetable and animal kingdom that the Danes draw the greater part of their wealth.

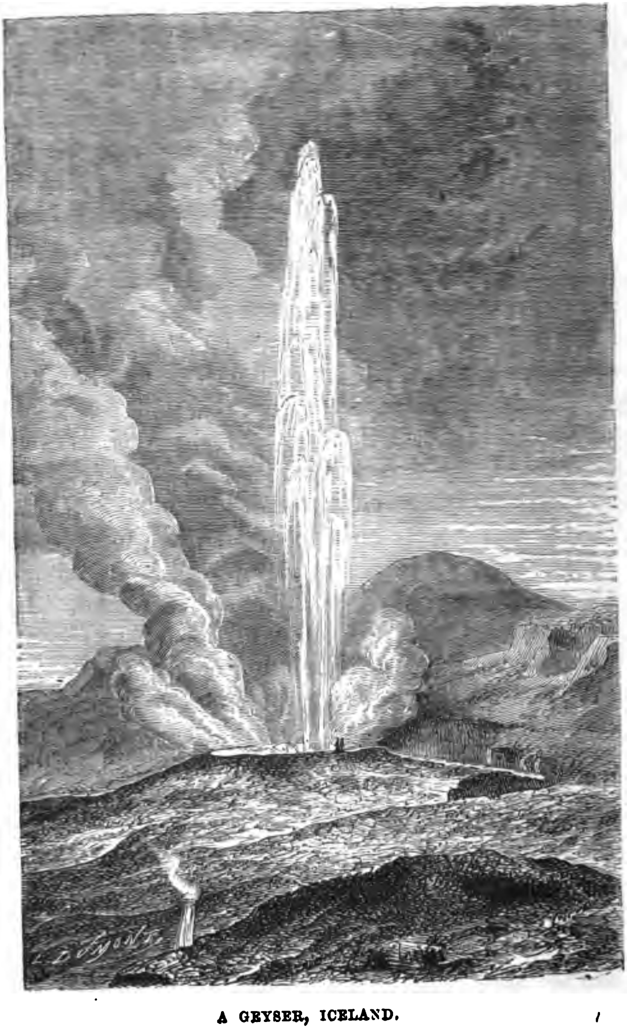
Though forests once covered the soil, the people have now to import timber; but green pastures and dairy farms fatten beeves and sheep, and leave a large surplus of provisions, hides, wool, tallow, lard, and horses for export. Domestic poultry are reared at a profit. The fisheries are worked with industry, especially in the Cattegat, where lobsters are extensively caught. Commercial intercourse with foreign nations has, therefore, always been considerable, and sometimes great. Love of the sea has, from the ancient Phœnicians and Greeks down to our own days, made colonising races; and the Danes, like the Dutch and English, have increased their commerce by settlements in every quarter of the globe. Their dominions were added to, but not enriched, by taking Greenland, Iceland, and the Faroes (in the Arctic Ocean). Colonies were settled in the East and West Indies, and along the African coast.

Great troubles have marked the history of Danish colonies and commerce. During the wars towards the close of the eighteenth century and the beginning of the nineteenth, Denmark made great profits by becoming the common carrier, as a neutral State, for the nations at war, whose merchantmen dared not venture to sea. Its fleet became powerful and numerous, able to defend itself from attack, and to supply Europe with the luxuries of the east and west from which they were otherwise shut out. Denmark resisted the right of search which England claimed, and brought upon herself the loss of her colonies (restored at the peace) and most of her marine. England appeared before Copenhagen (the capital of Denmark) to demand the surrender of the Danish fleet, in order to prevent it falling into the hands of Napoleon; and after Nelson had bombarded the city the ships were delivered up. Although diminished in area by her most fertile provinces having been wrested from her, Denmark still enjoys a quiet prosperity, and by royal alliances has given a King to Greece, an Empress to Russia, and a future Queen (the Princess Alexandra) to the British Empire.

Iceland, a province of Denmark, is an interesting island lying on the borders of the Arctic circle, and nearer to Greenland than to Europe. It is the second largest of European islands, having an area considerably greater than Ireland. Its rocky shores resemble those of the west of Scotland. The interior is mountainous; and snow-fields, glaciers, bare rocks, lava, and volcanic ashes cover the greater part of the land. Only a few dales in the south are in any degree capable of cultivation. Some of the mountains, as Heckla and Skaptar Yokul, are active volcanoes.

The island has long been celebrated for its geysers, or hot springs. The people are descendants from old Norwegian colonists, and are noted for their honesty and love of education.

The Faroe Islands are a group of mountainous rocky islets lying between Norway and Iceland.



A GEYSER, ICELAND.

The islanders are chiefly fishermen, but many get their living by climbing the dangerous cliffs for the eggs and feathers of sea birds. There are numerous flocks of sheep on the islands, and ponies run half wild.

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phys'-ic-al
rav'-ag-ed
su-prem'-a-cy
sĕ'-par-at-ed
in-de-pend'-ent
ĕ-spec'-i-al-ly
dan'-ger-ous
mar-ine'
al-luv'-i-al

Excluding Iceland and the Faroe Isles, Denmark has an area rather less than the half of Scotland. Its surface is, for the most part, flat and low; in many places it is below the level of the sea, the water being kept back by dykes and sand-dunes. The chief industries are agriculture, cattle and sheep rearing, and fishing. The principal exports are cattle and sheep, butter, corn and flour, and wool. Copenhagen is the capital and chief port, and the only large town in the country.

Iceland is noted for its mountains, snow-fields, glaciers, lava-fields, volcanoes, and hot springs.

HOLLAND.

LESSON XLV.

PHYSICAL FEATURES.—DYKES.

THE eleven united provinces of the North Netherlands, now known under the name of Holland, form a small country, not more than 200 miles long, by 120 broad, lying along the south-eastern shore of the German Ocean, and enclosing an area of 20,500 square miles. It lies on the west coast of the mainland of Europe, opposite southern England. Holland and the adjoining kingdom of Belgium, which before 1830 were united in one government, are often called together the Netherlands, or Low Countries (*Nether* meaning "low"). The name is a very correct one, for these countries scarcely rise above the level of the sea. Holland was at first a mere marsh flooded by the tides. It appears to have been inhabited early by a race which had first to "fish up" the land before they could settle. The ocean has been banked back by centuries of human labour, yet much marsh land still remains; and the surface of the country in some places is as much as forty feet beneath high-water mark, while a hill is nowhere to be seen.

From the deep and irregular indentations it is difficult to compute the length of coast line, which is low everywhere. The flow of the sea being eastward, shoals of drifting sand and shingle collect in double and triple lines of mounds, or dunes, forming natural bulwarks against its inroads, and they are made compact by the roots of the sand reed, which mat together and prevent the sand blowing further inland. These embankments are also strengthened artificially, by fixing buttresses of timber (called "breakwaters"), running down to low-water mark, at right angles to the shore, in order to arrest and pile up the sand, just as the sea frontage of Brighton, Hästings, and other towns on the south coast of England are guarded from the waves.

Where dunes do not exist, dykes are constructed of timber piles, extending for hundreds of miles along the estuaries and rivers; and in other parts, sea walls of massive granite blocks present a rampart against which the waves beat in vain. Dykes, also called coffer dams, are built of two parallel rows of squared and pointed logs, fitted closely side by side, and driven into the mud; the space between the rows being rammed water-tight with clay. The principle of their construction was shown during the formation of the Thames Embankment, and is adopted in the repairs of the piers of the noble bridges that span that river. Along the tops of the dykes, roads, paved with bricks set edgewise, are made, and lined with poplars. Canals

STREET IN HOLLAND.

stretch across the land in every direction, serving as means of intercourse between towns, and even as urban or town thoroughfares. They are of vital importance for drainage ; the rainfall, which would otherwise submerge the humid country, being pumped into the canals by the agency of a multitude of windmills.

The first cost of sea walls and canals, and the expense of keeping them in repair, has amounted to a fabulous sum ; yet constant watchfulness has not always prevented the sea bursting through with devastating effect. Examples of destruction, with appalling loss of life, are afforded in the Zuyder Zee, or South Sea (so named to distinguish it from the North Sea or German Ocean). It was formerly a small lake till the barrier was borne down in 1225. Another instance is the Dollart Zee, formed by a like inundation fifty years later. Haarlem Mere, in North Holland, and the Biesbosch, both lakes of considerable size, are due to the like causes.

Beaver-like, the Dutch never cease in their efforts to dam out the water and to reclaim the land wrested from them by submergence. Lakes and marshes have been drained, and their beds, converted into fine pastures called polders, now dotted over with countless oxen and cows. Indeed, in travelling by rail through Holland, the fact is forced upon every observer that there appear to be more cattle there on an acre of grass than in any other country of the world ; and the fields are seldom separated by hedges, as in England, but by channels (like canals) into which the water drains from the pasture land to be pumped by windmills into the sea. The most considerable of these reclamations is the depression once filled by the Lake of Naarden; but the drainage of the Zuyder Zee itself (although forty miles square) is a project which has long filled the Dutch mind. The extent of land thus added to Holland during the last four hundred years exceeds 1,500 square miles, or more than a tenth of the whole territory, and the increase is still proceeding at an average rate of four square miles a year.

Dutch history has been one long struggle for existence. The quaint national motto is, "I strive to keep my head above water." The ancient speech of the people had but one word to describe the soil, for they knew only of bog. The surface upon which "they did not land, but went aboard," was, for the greater part, alluvial, and not firmly anchored; for wide seas covered former dry land, and the name of Zeelands, or sealands, pointed to provinces torn into islands, while the shores were always changing their form. But plodding industry clothed the bog with verdure, and made it the feeding ground of beautiful kine and fat cattle, which furnished dairy produce and flesh foods for foreign countries.

Commerce was a vital necessity for the inhabitants; though turf, useless in barter, was the sole mineral resource, as frogs with storks to eat them were said to be the only animals, and rushes the sole vegetable product. The hardships of their lives made them daring, and the Norse sea rovers found them a different people to attack from those of neighbouring lands. For four months in the year commercial intercourse is checked by frosts; yet, having to procure materials from abroad, they possess large fleets, and their fishing-boats cover the sea. The Dutch have been the chief fishermen of the world, and at one time supplied all the markets of Europe. Their fame in their earliest art remains to this day. Herring fisheries alone are said once to have employed half a million of men. Billingsgate still depends in part upon the Dutch for supplies of cod, turbot, lobsters, herrings, and the choicest fish; and their smacks never fail alongside the fish market quay.

The numerous Dutch islands form two groups. One group, of which Texel is the largest, encloses in a curved line the Zuyder Zee; and the other constitutes the main part of the province of Zeeland, and the Delta of the Rhine. Of this latter group Walcheren is best known to readers of English history. These last islands are divided from one another by the mouths of the West and East Scheldt, the Maas, and the Rhine. The river Amstel gives its name to Amsterdam (the capital, situated at the mouth of the Y), a city which in itself embodies the Dutch character. A marsh looking out upon waters that had ravaged a province was chosen as the site of an emporium of trade. Without native timbers, a forest of piles was driven into the ground to build upon, and fleets were constructed. Surrounded by swamps and shrouded in mists—dispersed only by the summer sun—the city became a vast granary and a storehouse of the fruits of the earth. Fishermen made great hauls of herrings, yet no home-grown hemp could be got for their nets nor iron for their fish-hooks. No happy accident favoured the city; but the sea bathed its walls and entered its streets, and its merchantmen became so numerous that the view was stopped by a thick forest of masts and yards.

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but'-tress-es
em-bod'-ies
em-pŏr'-i-um
ar-ti-fĭc'-i-al
sub-merg'-ence
re-clam-a'-tions
edge'-wise
princ'-i-ple
ob-serv'-er

Holland has about the same area as Denmark, and, as in Denmark, the surface of the country is flat, much of it below the level of the sea, and protected by dykes. Many of the rivers have their waters confined by artificial banks, and the drainage is pumped into the rivers or into the sea by innumerable windmills. No country in the world has such an extensive system of water-communication as Holland. Rivers and canals intersect the country in all directions, forming a vast network of water-ways. The chief rivers are the Rhine, the Maas, and the Scheldt.

Even the green fields, or "polders," as they are called, are separated by stretches of water instead of by hedges or walls as in England.

Holland is one of the most remarkable instances of the triumph of industry and energy over natural difficulties.

LESSON XLVI.

HOLLAND.—INDUSTRIES.—HISTORY.—RACE.

THE proverbial industry of the Dutch is agricultural and commercial, rather than manufacturing. The cows are excellent milkers, and supply vast quantities of butter and cheese for export. Cattle and sheep are raised in numbers sufficient to create a large foreign trade, lean cattle being sent from Germany to be fattened in the meadows for the foreign market. Corn, mostly oats, and potatoes are cultivated for home use, together with madder for dyeing, and flax for spinning and weaving into linen. The Dutch have always been noted as florists, especially for bulbs, such as hyacinths and tulips, in the growth of which they have no equals.

The chief division of manufacturing industry is that of ship-building and mill-work. Dutch vessels are much sought for on account of their excellence. Sugar-refining goes on at Amsterdam, which city is also renowned for the skill of its artists in cutting diamonds and gems, largely obtained from India. Large and numerous breweries and distilleries produce vast quantities of beer and spirits. Linen is the principal woven fabric; and a coarse pottery, called from its place of manufacture Delft ware, was once in much request in England.

As a commercial country Holland, in the sixteenth and seventeenth centuries, stood before

ST. ANTHONY'S GATE, AMSTERDAM.

England. All the larger towns are forts of ancient date. The principal of these are Amsterdam (a dam on the river Amstel), Rotterdam (a dam on the river Rotte), Groningen, and Utrecht. Amsterdam is one of the great commercial cities of the world. The Hague is the seat of the court of Holland.

For generations the Dutch were the carriers for the world, and supplied Europe with commodities from both hemispheres. The Dutch sent vessels to India in 1596, and, outbidding the Portuguese, who had made that field their own, laid the foundation of a profitable East India trade, and of possessions in the Eastern Archipelago. A few years later Henry Hudson, an English navigator in the service of the Dutch, planted their flag on the vast territories in North America, to which he gave his name; and trading stations rapidly sprang up for the purpose of obtaining otter and beaver skins and furs from the Indians. A few log-huts that sheltered his seamen on the island of Manhattan were the humble origin of the magnificent city of New York.

At this time more vessels were built in the docks of Holland than by all the other ship-builders of Europe. Timber, masts, sail-cloth, caulking, and marine stores were kept in such quantities that the famous ship-yards of Zaardam guaranteed to deliver any number of ships, at the rate of one a day, three months after receipt of an order.

When England began to trade with India, an understanding grew up with Holland, that the one should confine its trade to Hindostan, and the other to Further India and the islands. The Dutch kept the trade in spices to themselves by limiting the clove and nutmeg groves to certain islands, and rooting up the plantations elsewhere. They could not, however, forbid the birds carrying the seeds, nor prevent the English from growing spices in their own settlements. The Dutch East India Company undertook the whole carrying trade of Africa, India, China, and Japan, and established colonies at intervals along the line of route, amongst others the Cape of Good Hope, which was but little regarded except as a place of call for the merchant fleet going and returning. The Boers of the Transvaal and of the Orange Free State are the descendants of the Dutch colonists, and still keep their primitive manners and speech. So many thousands of persons, it is said, were set to work through this trade that not one beggar or idler could be seen in Amsterdam.

England and France at last sought to do for themselves what the Dutch had hitherto done for them ; and Cromwell and Colbert encouraged the merchants of each country respectively to trade in home-built vessels. The commerce of Holland gradually declined, and internal dissensions and war still further injured it. A most disastrous time was that of the French occupation from 1795 to 1813. Shut out from commerce by the supremacy of England at sea, the Dutch lost most of their colonies, while home industries died out from want of the raw materials for manufacture, and from the ruinous levies made by the French.

VIEW OF DORT, HOLLAND.

Blockaded along the coast by English men-of-war, Amsterdam was deserted and its port was empty.

After the peace of 1815 Holland regained much of its activity, though obstructed by the opposite policy, interests, and religion of the Flemings (the people dwelling in the southern half of the Netherlands, now known as Belgium), who had been forced into unwilling union with the Dutch, and who rebelled, at great cost and sacrifice to both sides, in 1830. Since the severance of the two countries, Dutch manufactures again compete with the most favoured countries, though agriculture and commerce still rank higher in importance.

Industry is the good genius of the Dutch. Their wind and water mills, and labour-saving machines, their mercantile credit and banking system, their coolness of temperament, and good judgment in the choice of commodities for barter, keep them in advance of competition. The Dutch people trade for profit, not for glory. So shrewd are they in their dealings, and so fond of driving a hard bargain, that it has been said "the fault of the Dutch is, giving too little and asking too much." Nevertheless, they are frugal, industrious, and business-like in their habits, and faithful to their engagements. "There are few criminals, and no paupers," says Mr. McCullagh. "Nowhere is freedom more highly prized, popular education more universal, regard for law and order more profound, the rewards of labour more widely shared, the comforts of life better secured, and the blessings of civilisation more equally diffused." The Dutch race belong to the Low German stock, as also do the English. Living on the water as much as on land, they are humorously described as amphibious; and though the mists of their marshes are unhealthy to foreigners, the Dutch thrive, and have an intense love of their home. Holland still possesses Java and the Spice Islands, parts of Sumatra and Borneo, Celebes, and Timor—all in the East,—and Guiana in South America; and, next to England and France, it forms the wealthiest State in Europe.

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prov-erb'-i-al
suf-fic'-i-ent
dis-sens'-i-ons
hy'-a-cinths
prim'-i-tive
crim'-in-als
dye'-ing
am-phi'-bi-ous
caulk'-ing

Holland is a grazing rather than a corn-growing country, and cattle-rearing and cheese and butter making are the chief inland industries. The other important industries are fishing, ship-building, and commerce, but there are some silk and woollen manufactures. Amsterdam, Rotterdam, and the Hague are the chief towns. Amsterdam, the capital, is one of the greatest commercial cities of the world.

The chief exports are butter, cheese, sheep, cattle, refined sugar, and manufactured goods.

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BELGIUM.

LESSON XLVII.

BELGIUM.—PHYSICAL FEATURES.—RESOURCES.

UNTIL 1830 Belgium formed the southern part of the kingdom of the Netherlands, or the Low Countries. Previous to the French occupation of the Netherlands in 1795, it was known as Flanders, its principal provinces giving a name to the whole. Anciently it was the land of the Belgæ, conquered by Julius Cæsar, 57 B.C., whence was chosen its recent name. The present kingdom of Belgium lies southward of Holland. It has an area of 11,400 square miles, and is not so large as a fifth part of England. For its size Belgium possesses the most varied landscape, climate, and resources, the best watered surface, the greatest range of industry, and, leaving London out of account, the densest population of any country in Europe. In the south it is hilly, the mountains of the Ardennes being partly in Belgium and partly in France. The northern and western provinces are, on the contrary, low and flat, consisting in various places of polders, or cultivated flats rescued from the sea.

The estuaries and rivers are embanked, as in Holland, and the coast line is protected by double and triple ridges of sand dunes, which sometimes extend three miles inland. Steaming up the Scheldt, we can, while standing on deck, see scarcely more than the tops of houses and churches, so low is the land and so high are the river banks. By the encouragement of the growth of the sand reed, whose matted roots spread beneath and bind the surface, the sand is not only prevented from further encroachment, but in the course of ages a vegetable soil has been created, now densely covered with fir-trees.

The coast is encumbered with dangerous sand-banks, and though it extends only 40 miles in length, yet the flatness of the land allows the sea breezes a free passage, and thus gives an insular or equable climate to some of the provinces. One-fifth of the kingdom is covered with trees. This circumstance, added to the volume of water in the many rivers and canals, increases the humidity of the climate, though not to the same extent as in Holland or Denmark.

The mineral resources of Belgium, as rich as they are various, are confined to the narrow district between Fontenoy, in Hainault, and the boundary line of Rhenish Prussia. This is the great coal-field of the basin of the Maas and its affluent the Sambre. Unlike the English coal-fields, the beds are tilted almost upright, and the coal shafts are therefore constantly sunk deeper and deeper. In the opinion of some geologists the coal deposits are the reappearance of the

English strata, which have run to a great depth under the south-eastern counties, and cropped out again on the south side of the Channel. Many iron mines are wrought in the same locality, which is also rich in copper, lead, zinc, and manganese. Freestone, limestone, granite, paving slabs, slate, and marble, are freely yielded for building ; and the best millstones, whetstones, and grindstones, are quarried at Liège. Sulphur and alum, clay for pottery and porcelain, sand suitable for glass crystal, swell the total of the mineral treasures of this small State.

Agricultural produce is abundant, owing more to industry, skill, and intelligence, than to the fertility of the soil. England does not yield such harvests as are raised in Flanders. Two hundred years ago many of the fields were barren sand. Now eleven-twelfths of the land are cultivated or support timber, and barely a patch can be found but contributes something to the necessaries and comforts of life. Its villages and towns almost touch each other, and the land is so densely peopled, that Philip II. of Spain in passing through exclaimed, "This is only one great town." Yet such is the excellence of the farming, that Belgium exports corn largely. Wheat, oats, and rye, are the chief crops, each having its own districts, where it can be most profitably grown. Flax is a staple product, and provides linen yarn, linseed oil, and oilcake. Hemp, rape, clover, potatoes, hops, madder, tobacco, and culinary vegetables, are grown in profusion.

Forests are preserved for their timber; fir, beech, ash, and oak; the last valued for its bark as well as its wood. Horses and oxen find rich pasturage in various provinces. Lean cattle are sent from Denmark to the meadows of Belgium for fattening. Horses of large size and strength, the dray horses of our brewers and coal merchants, are reared in Flanders; and the breed of black horses, used in funeral ceremonies, is of Flemish origin. Cattle are kept in good condition, though excelled by the fine beasts of England. Namur sheep (grown on the highlands which slope from the French Ardennes mountains) yield excellent mutton, and give a fine fleece, to which is due the celebrity of Flemish woollen cloths. Bee culture is likewise successfully pursued. In common with Holland, the fisheries form an important industry, and a source of national wealth.

Owing to the plentiful supply of coal the manufactures of Belgium have always been important. They may be classed under the two heads of woven textures and metal work. Woollen goods are made at Verviers and Liège; linen in West and East Flanders, Brabant and Namur; cotton at Ghent and Antwerp; carpets at Tournay; lace, of world-wide fame, at Brussels and Mechlin. Smelting, founding, hardware, and metal work generally, but chiefly in iron, constitute productive industries in the coal district. The mineral resources of Belgium appear to be without limit, and the enterprise of its citizens has gone so far as to take from England some of the iron trade, and has even supplied us with locomotives from Liège, the continental Birmingham.

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con'-quer-ed
rĕ'-scu-ed
hu-mid'-i-ty
cĕ'-re-mon-ies
en-croach'-ment
en-cum'-ber-ed
re-ap-pear'-ance
in-tel'-li-gence
ĕ'-qua-ble
fer-til'-i-ty
cul'-in-a-ry
ce-leb'-ri-ty

For its size Belgium possesses the most varied landscape, climate, and resources, the best watered surface, the greatest range of industry, and (leaving London out of account) the densest population of any country in Europe. In the west and north the surface is flat like that of Holland. The southern and eastern provinces are hilly. The Scheldt and Meuse or Maas are the chief rivers, and there is a widespread canal system between these rivers. Agriculture is carried to a high state of perfection in Belgium. Wheat, barley, oats, rye, flax, hemp, tobacco, and potatoes are the chief products.

Belgium is also rich in minerals—iron, coal, copper, lead, and zinc—which, next to agriculture, constitute the chief source of national prosperity.

LESSON XLVIII.

BELGIUM.—INDUSTRIES.

BELGIUM presents the most perfect picture of a human hive of industry. Brussels—the industrial as well as political capital—is in the centre of the central province, Brabant, round which cluster the provinces of the two Flanders, Antwerp, Limburg, Hainault, Namur, Luxemburg, and Liège; while from the capital itself radiate highways, canals, and railroads, forming excellent and easy means of intercourse with every town and port in the kingdom. Indeed the industry of the Low Countries has a history of a thousand years' growth. The energy of the Dutch has been compared to that of the Phœnicians, springing out of necessity; the energy of the Flemish to that of the Egyptians, arising from natural resources. Ghent was the abode of Persian weavers as early as the ninth century, and Bruges was a trading city in still earlier times. Antwerp succeeded to a good deal of the commerce lost by Bruges, but still claims an ancient date.

Differing from the Egyptians to whom they have been compared, the Flemings (as the Belgians are called) did not embody their enterprise in pyramids and granite columns, but in great and busy cities, holding communication with every part of the known world, and growing rich thereby. Bruges was the chief town of the Hanseatic League, and the centre of the overland traffic of Germany, by means of which the Italian trading republics of Venice and Genoa exchanged their costly eastern goods for the raw produce of the north. Antwerp attracted commerce by easy dues; and in its palmy days of the sixteenth century, goods were borne to its shores from the east, west, north, and south, by land and by sea, obtaining for it the name of the "Market of the World," till the business of a month doubled that of a year of the best days of

Venice. Antwerp, however, situated on the estuary of the Scheldt, its only communication with the sea, flourished or declined with the possession or loss of that outlet to its commerce, and with that of Antwerp the prosperity of Flanders rose or fell.

Spain in its blind rage at the heresy of the citizens had the glory in 1585 of destroying a harbour where a forest of masts were wont to be seen, and of causing grass to grow in the streets of the city which had contributed more to Spanish revenues than any other city in its wide dominions. Amsterdam rose on the ruin of the trade of Antwerp, and the interest of the Dutch kept the Scheldt closed to the Flemings for very many years. In 1648 a complete bar was put to the recovery of Antwerp by the treaty of Westphalia; one of the conditions of which was the permanent closing of the Scheldt in favour of the Dutch, in whose territory lies the whole of the lower part of the estuary; nor was it opened again till the French occupation in 1792. Napoleon designed Antwerp for a great naval station, and constructed a dockyard there, only recently destroyed by fire. The restoration of Antwerp, as a commercial port, was checked again in 1830, by the severance of the two Netherlands against the will of Holland. The resentment of the Dutch closed again the trade of Antwerp until peace was restored in 1839. Severed from Holland, the new kingdom somewhat strangely took for its national motto "Union is strength."

The dense population, the excellent roads and canals, the institution of a national bank, and a new sense of loyalty to a king who devoted his life to the well-being of his subjects, and more than all, the industrious and enterprising character of the people he governed, carried Belgium through its difficulties. Commerce revived with the opening of the Scheldt; and though Amsterdam felt, and continues to feel, her interest to suffer by the rivalry of Antwerp, time soothed the ill-feeling between the two Netherlands, and a renewal of commercial intercourse benefited both kingdoms. Cloth, coal, iron, metals, glass, and furniture, were taken by the Dutch, in exchange for the spices and other colonial produce of their East Indian possessions. A treaty of commerce was concluded, and the relations between the two States have grown to be of the most friendly nature. Manufactures now again flourish, and the fisheries of the Dogger Bank, in the North Sea, are wrought with more than their former vigour. Antwerp once more has become a great emporium of trade; and the whole kingdom has entered upon a career of prosperity which increases every year.

Most of the Belgians belong to the Low German branch of the Teutonic race; that is, to the same branch as the Dutch and the English. With these, and speaking the same tongue, are a few German-Dutch, in the provinces joining on to Prussia. A distinct race called Walloons, speaking a dialect of the French, is of Celtic origin. Ordinary French, however, is the language of the Court and of the educated classes, while Flemish (the native tongue of Flanders) is so generally used that the towns and streets have usually two names, one French and the other Flemish, and the tradespeople are equally apt with their customers in either tongue.

In consequence of this intermixture of races, governed for centuries by foreign Powers, and the short career of Belgium as an independent kingdom, there has been but little real national feeling amongst the people, who have identified themselves more with their native towns than with the country as a whole. But as they are happy in their constitution and government, the sentiment of loyalty to the common welfare has taken root, and the citizens are beginning to be as proud of the name of Belgian as once they were of that of a burgher of Bruges or Ghent.

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in-dus′-tri-al
po-lit′-i-cal
ĕ′-duc-at-ed
rĕ′-ven-ues
sĕ′-ver-ance
sen′-ti-ment
per′-man-ent
re-new′-al
burgh′-er

Belgium is a manufacturing as well as an agricultural and mining country, and one-fifth part of the population are engaged in this industry. The great seats of the metal manufactories, foundries, &c., are Liège, Seraing, Charleroi, Namur, and Mons. The oldest industry is that of linen-weaving. This industry is still carried on at Ghent, Bruges, and Tournay. At the latter place the celebrated Brussels carpets are made. Ghent and Antwerp are the chief seats *of the cotton manufacture, and Verviers and Liège of the woollen. Fine lace is made at Brussels and Mechlin.*

Brussels, the capital, is one of the finest cities in Europe. Antwerp, on the Scheldt, is the great seaport and fortress of Belgium.

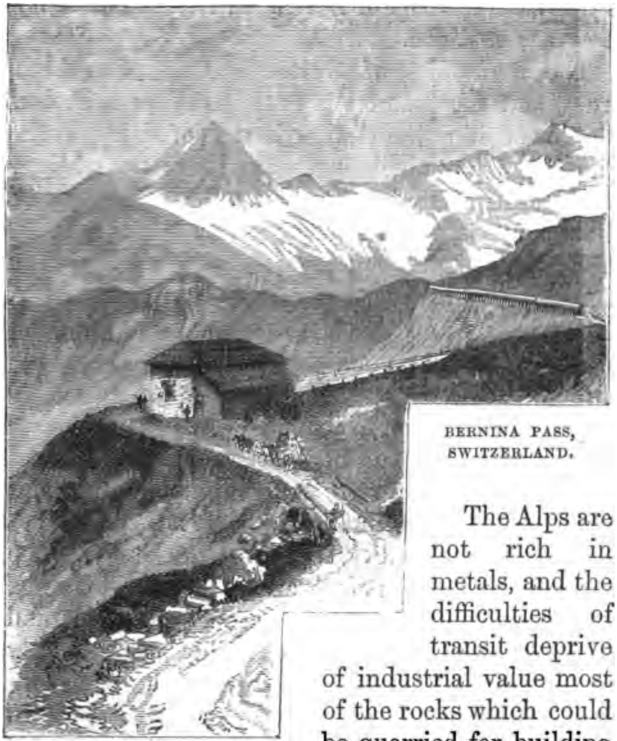
The chief imports of Belgium are colonial produce and the raw materials for the cotton and woollen manufacture. The chief exports are flax, woollen goods, metals, and agricultural produce.

SWITZERLAND.

LESSON XLIX.

PHYSICAL FEATURES.—INDUSTRIES.

SWITZERLAND, consisting of twenty-two cantons, or provinces, is the most mountainous country in Europe. It has an area about one-fourth of that of England. The Alps extend not only along the whole of its northern and eastern frontiers, but also stretch far into the interior, the heights varying from 5,000 to 15,000 feet. The striking physical features of Switzerland are its giant peaks, clothed in eternal snow, its glacier systems, river torrents, and mountain lakes. Amid these there are beautiful and fertile valleys, whose green pastures contrast with the ice-rivers and snow-drifts, and form a considerable surface of productive soil. Other things being equal, the climate varies with the altitude. Over its broken surface botanists have traced seven belts or zones, having as many shades of climate and as many kinds of plants and trees as require seven climates. These are distinguished as the regions of the vine, oak, beech, fir, pasture, scrub, and of the hardy moss and lichen which are only arrested in the abode of snow.



BERNINA PASS, SWITZERLAND.

The Alps are not rich in metals, and the difficulties of transit deprive of industrial value most of the rocks which could be quarried for building stone. The Grisons are an exception, being stored with metals, so that iron, lead, copper, zinc, silver, and even gold, have been wrought for many years. Metallic veins exist in the canton of Berne; but the cost of working would exceed the value of the produce. Cobalt, lead, and crystal are exported from Valais. Peat is dug from the bogs of Zurich, and a small quantity of coal is obtained.

The husbandry of Switzerland is of a high order, and the produce is both varied and choice. The most important work is that of dairy farms. The Swiss pay much attention to cattle rearing, and possess a fine breed of cows. The richness of the pasture is reckoned by the number of animals it will maintain, eight goats, or four calves or sheep, being reckoned equal to one cow. The dairy produce is in high estimation, and the cheese of Gruyères and of Neuchâtel is famous throughout Europe. Valais, the most extensive valley of Switzerland, has every climate, from that of Iceland to that of Sicily. Barren heights and frightful cliffs contrast with verdant plains and almost tropical luxuriance. Harvest occurs, according to the locality, from May to October. The almond, fig, and pomegranate ripen; the vine, with hardly any care, produces fine grapes; and the tender asparagus grows wild, within a few hours' march of districts where fruit and corn cannot endure the inclemency of the climate. In some parts, on account of the mountain slopes lying northward or southward, and being exposed to or sheltered from the sun, it is possible for a traveller to drive or walk from wintry to summer scenes—from snow to a land of ripe corn—in a few hours.

The chain of Mount Jura, on the north and north-west, in no part reaching the snow-line, is clothed with pine-woods; but the forests of Switzerland are nowhere else extensive. The wild animals include the bear, chamois, or mountain goat, and birds of prey. Fish, too, are numerous in the lakes.

Nature has ordained the industries of the Swiss. Pastoral husbandry, limited in season and in district, is the only possible form of agriculture. Handicrafts, suited for towns and home, must be the winter vocation. The central portion of Switzerland invites a transit trade. Mountains, as barren as the Dutch marshes of metals and timber, render Switzerland and Holland, though utterly opposite in aspect, equally the homes of free trade. Necessity has made the Swiss industrious, and they have improved upon its teachings. By their frugality, energy, skill, and thrift they have obtained raw materials from abroad, and made their manufactures eagerly sought for in exchange. Mountain streams are turned to account for the motive power of mills, and steam drives some of the largest factories known in the whole range of human industry.

Though Switzerland is one of the most recent aspirants to a place amongst commercial nations, various towns trace back to the Middle Ages the origin of their staple crafts. When the patches of fertile land had been tilled and mown, spinning and weaving—the primitive industries, allied to husbandry—followed in due course. Linen was made at St. Gall, where, also, calico printing was afterwards carried on with success. Basle possesses silk manufactures; and the kindred art of dyeing was brought to such perfection that France, so famous for brilliant textures, sent its silks and tissues to be dyed in Switzerland. Zürich became, and remains, notable for its work in cotton. The largest ribbon factory in the world is at Basle. Geneva and Neuchâtel send jewellery and millions of watches, which the Swiss women are largely engaged in making, every year over the whole globe. Swiss clocks are also exported in large numbers.

Attracted by its magnificent mountain and lake scenery, large numbers of tourists visit Switzerland every year from all parts of the world, and of course incidentally encourage trade, and add to the well-being of this prosperous country. The exports comprise silk, cotton, lace, watches, jewellery, straw-plait, iron work, skins and hides, cattle, cheese, wine, and liqueurs. The imports consist of grain and raw stuffs, wool, flax, rice, sugar, coffee, leather, drugs, dyes, and other colonial produce, metals and hardware, salt, nitre, and timber, soap, oil, spirits, wine, beer, and tobacco.

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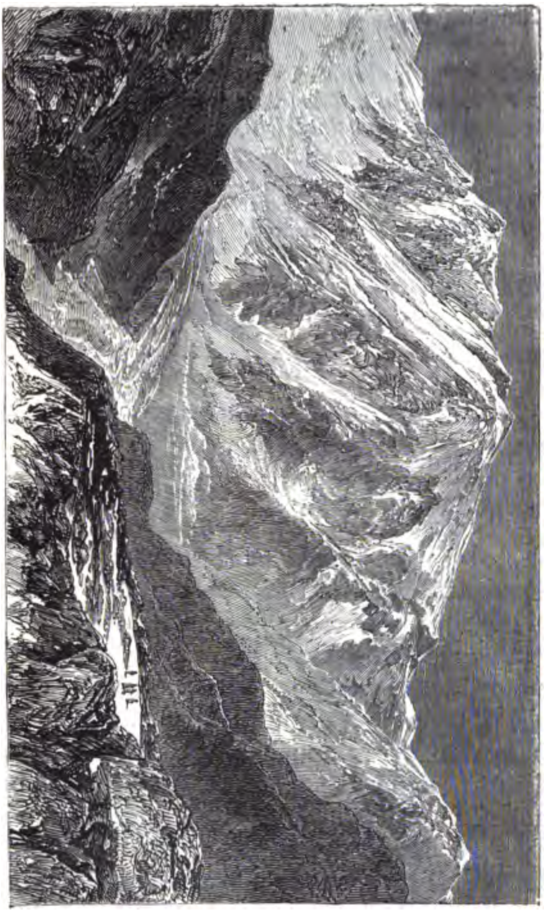
alt′-i-tude
as-pīr′-ants
not′-a-ble
li-queurs′
lux-u′-ri-ance
pome′-gran-ate
in-ci-dent′-al-ly
jew′-el-ler-y
as-par′-a-gus
in-clem′-en-cy
fru-gal′-i-ty
prim′-i-tive

Switzerland has an area about one-fourth that of England. It is the most mountainous country in Europe, and many of the Alpine peaks are covered with eternal snow. The principal heights are the Matterhorn and Monte Rosa in the Pennine Alps (Mont Blanc, in Savoy, is the highest peak



MONTE ROSA IN THE PENNINE ALPS.

in Europe), and the Finstĕr-aar-horn and Jungfrau in the Bernese Alps. More than twenty of the Alpine peaks are above ten thousand feet in height. The northern and by far the larger portion of Switzerland is drained by the Rhine and its tributaries. The south-western part belongs to the basin of the Rhone. One valley, the Engadine, in the south-east, is drained by the Upper Inn, a tributary of the Danube.

Switzerland is celebrated for its beautiful cities, the principal of which are Geneva (partly in Switzerland and partly in France), Constance (partly in Switzerland and partly in Austria), Zürich, Lucerne, Neuchâtel, and Berne.

LESSON L.

SWITZERLAND.—HISTORY AND GOVERNMENT.

THE Government of Switzerland is a Republic. The Parliament consists of two Chambers, called the Federal Assembly, the members of which are elected by the people for three years. The President and Vice-President are the chief magistrates of the Republic.

There is no Swiss race, properly so called, and no national language. The people are of mixed blood. Portions of the German, Burgundian, and Italian nations, through a variety of causes, were detached from their own countries, and became united to one another amongst these mountains by close political ties. Many Huguenots (French Protestants) driven from France by the cruel persecution of Louis XIV. found refuge in Switzerland, bringing with them their pious habits, and native skill in ribbons and silk, which repaid their hosts with an industry soon taking precedence amongst Swiss handicrafts.

The germ of the Confederation was the alliance of the three Forest Cantons, as they are still called, Schwytz, Uri, and Unterwalden. From the first of these, the names of Schweitz, Switzer, and Switzerland, were in time extended to the twenty-two cantons which, by successive additions, now constitute the Republic. The Swiss still speak the languages and dialects of all the diverse families to which they belong. Dialects of High German are spoken most widely in the west or old Burgundian districts; French in the south-west; Italian is spoken on the borders of Italy; and in the Grisons a distinct member of the Latin family of languages, the Rumansch.

Differing thus in race and speech, the Swiss are united by a common history of which they have reason to be proud. Their love of independence, fostered by their life on the mountains, inspires them with a national feeling, and a sense of the honour and security which belongs to the citizens of a free and self-governed community. An interesting social feature in the habits and customs of the people arises out of the diversity of language in Switzerland. The educated youths of the country speak several languages, sometimes nearly every language of Europe. It has long been the practice of the Swiss, in early manhood, to travel, and for a time to settle in other lands, either as soldiers or artisans. Their residence abroad keeps commercial intercourse open between Switzerland and its foreign customers; and trustworthy young men are often supplied with capital from home to start them in business, returning to their native land eventually with their fortunes made. Swiss couriers are much in request as guides over the Continent, and Swiss waiters, who speak many languages, are met with in great numbers in the hotels of every capital and important town.

Recent researches have brought to light some very interesting relics of ancient life in Switzerland. In dry seasons, when the lakes have sunk below their ordinary level, remains have been found which show that, in times long gone by, a race of early people lived in the villages supported on piles standing in the water. They were placed in this position for the sake of safety from enemies. These remains lead our thoughts back to a period, before the dawn of history, when men inhabited this country who knew nothing of metals, and had no other weapons of war or the chase than wood, stone, and the horns or bones of the beasts on whose flesh they fed. From the fact that these weapons and tools were fashioned from flints and stones, whose hardness enabled them to receive a cutting edge, this early stage of human history has been called the Stone Period, to distinguish it from later stages of progress when man began to use first bronze and then iron weapons.

A rude shock was given to Swiss prosperity by

EMS ON THE RHINE.

the French Revolution. For the first three years of the nineteenth century the frugal mountaineers struggled hard against French domination. Napoleon cut off their intercourse with England, their chief source for supplies of raw material, and closed against them every foreign market. But the Swiss were full of personal resources in their habits and character. Being both craftsmen and graziers, when one form of industry failed they took to the other. From their simple and thrifty tastes they were able to live more economically and make goods cheaper than the labourers of the States by which they were encircled; and as the Emperor, by his decrees against foreign goods, aimed at making the Continent self-supporting, he stimulated a through traffic in Europe, and the splendid roads of Switzerland attracted a large share of the transit trade. Smuggling also was cultivated as an art. English wares entered the mountain paths by way of Austria, and passing the opposite frontiers found ready customers in the French and German States. After the battle of Leipzig in 1813, the Swiss allowed the allies to pass through their territory into France; and Napoleon, in revenge, put such a rigid embargo on their trade that even food was forbidden to pass to and fro.

Swiss goods grow in demand year by year, especially since the English have adopted the principle of free trade, and the stringent regulations of France have been removed. As the goods pass through France and Germany, they figure also as exports of those countries, so that their value cannot be ascertained correctly. A third of the so-called French ribbons are of Swiss make; and Germany, England, and the United States are the best customers of this small, but intelligent, contented, patriotic, and prosperous community.

de-tach'-ed
al-li'-ance
art-i-sans'
cour'-i-ers
suc-cess'-ive
lan'-guag-es
rĕ'-sid-ence
en-cir'-cled
in-de-pend'-ence
fash'-i-on-ed
pa-tri-ot'-ic
e-co-nom'-i-cal-ly

Pastoral husbandry is the chief industry of Switzerland, and large quantities of cheese are made from the milk of cows and goats.

The chief manufacturing industry is that of watches, for which Geneva and Neuchâtel are celebrated, but cotton and silk weaving are carried on at Zurich, Basle, and St. Gall

Berne is the seat of Government for the united Confederation.

The principal exports consist of clocks and watches, silk and cotton fabrics, and cheese.

GREECE.

LESSON LI.

GREECE.—PHYSICAL FEATURES.—RESOURCES.

In the south of Europe, stretching—as an extension of Turkey—into the Mediterranean, is the peninsula called Greece, a country of great historic renown. The facts that the New Testament was written in the language commonly spoken in that country, and that in the infancy of the Christian religion some of the noblest works of the great Apostle Paul were wrought amongst the Greeks, give the land a special interest. But before the Christian era Greece, by her arts, literature, and commerce, had attained a fame that can never die.

Greece was anciently called Hellas, and its people Hellenes. The present name was given by the Romans, the people being first known to them as a tribe called Graeci. With the additions made to it in consequence of an agreement amongst the various nations of Europe called the Treaty of Berlin, the country measures about 34,000 square miles in area. So irregular and jagged is its edge that it has perhaps a longer coast-line in proportion to its size than any other country in the world. There are hundreds, many hundreds, of islands and islets, chiefly on the eastern side of the mainland. Although the peninsula is washed by the Mediterranean, there are local names to the waters: as on the eastern side, the Ægean Sea; on the western, the Ionian Sea.

There are three physical divisions of the country—the northern, which adjoins Turkey, and is mountainous throughout; the Peloponnesus, or Morea; and thirdly, the islands. Peloponnesus means the island of Pelops, who was a hero of ancient fable. It is a mountainous table-land, which would be an island but for a narrow neck of land, called the Isthmus of Corinth, connecting it with the northern division. The modern name for this division is the Morea, the Greek word for mulberry. The name was given either from the shape of the land, or more probably because of the abundance of mulberry-trees. In the third division comprising the islands, the chief group is known as the Grecian Archipelago.

Greece contains no navigable rivers, and few streams of any magnitude. Most of them are little better than mountain torrents, and many even of the larger ones become nearly dry in summer. The want of navigable rivers is, to a great extent, supplied by the numerous gulfs and inlets of the sea, which indent the coast east, south, and west, affording unusual facilities for commerce, and adding great beauty to the scenery. The largest of these gulfs—that of Corinth—which in its length of many miles is surrounded by lofty mountains, except at its mouth, has the appearance of a great inland lake, and the scenery is of the very finest kind.

Anciently, the Greeks were addicted to sailing across the narrow seas east and west somewhat in the character of pirates, plundering the people along the coast, and then settling for awhile as colonists. "Piracy was deemed an honourable occupation, and war the delight of noble souls." In this respect the old Greeks resembled the Norse Vikings. The number of Greek colonies, considering the small extent of the mother country, was very great; and the readiness with which the people left their homes to settle in foreign parts forms a striking feature in their national character. Two thousand six hundred years ago the southern part of Italy became so studded with Greek cities as to have acquired the surname of the Great, or Greater Greece. Just so the English colonies have sometimes been called Greater Britain. Love of the sea was inborn in the people; and such a race, endowed with a passion for enterprise and freedom, were, by their very nature, colonists and merchants. Even now, there are no keener traders than the Greeks, who are found in almost every commercial port in the world.

From its geographical position, warm climate, and natural resources, the brightness of its skies, and purity of air, though in a few places there are unhealthy marshes, Greece must be classed among the most favoured regions of the earth. Its beau-ties have been the subject of song from the days of Homer. The diversity of feature, soil, and produce has ever been reflected in the restless Greek character. Interchange even over small areas was a necessity. The Athenian lands (the lands round the capital) were little fitted for the plough or for grazing; but the olive was dedicated to their goddess Athené,* in gratitude for its abundance and value. The Athenians, therefore, imported corn and exported olives. The honey of the district called Hymettus, fragrant with the wild thyme which nourished the bees, was then as now the finest in the world, and must have been beyond value to a race to whom sugar was unknown.

The vegetable kingdom contributes grain and pulse, tobacco and sugar, olives and olive oil, figs, grapes, cotton, and a small kind of grape, growing in enormous bunches of eighteen inches to two feet in length. These, when dried, are exported from Patras in the Morea, Zante, one of the Ionian Islands, and Corfu, to the annual value of a million sterling for England alone. They are known as currants, a word derived from Corinth, formerly the best-known port from which they came. The mountain-sides are densely wooded with pine and other trees.

The animal world furnishes chargers for the army, mules and asses for riding, oxen for draught and the plough. Goats and sheep find sustenance on the mountains in summer, and pastures in the narrow plains during the winter. Wax supplied by the bees of Attica is as excellent of its kind as the honey; and the silkworm produces abundance of silk. Fisheries provide employment for thousands of the people, and food for all, and the finest sponges, commercially named Smyrna or Turkey sponges, are dived for in the blue waters of the Cyclades. The wild animals include the bear, wolf, boar, and lynx, the wild cat, jackal, stag, fox, badger, and marten, with numerous birds of the eagle tribe, and many species of game.

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* Called by the Romans Minerva.

The minerals are believed to be valuable, but, from the backward state of industry in general, are but little worked. Gold, silver, copper, lead, occur, though not in large quantity; yet Athens once obtained a surplus of these metals for export. The treasures of ancient art, both in temples and statuary, prove the presence of the purest marble, which indeed is exceedingly abundant. Sulphur is also obtained in various places.

Greek manufactures are of trifling account, no mills or factories of any large size existing in the country. There is some amount of shipbuilding; and silk, woollen, and cotton stuffs, gauzes, morocco leather, earthenware, cutlery, and firearms are made to some extent.

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ir-reg′-u-lar
isth′-mus
jag′-ged
pi′-ra-cy
phys′-ic-al
to-bac′-co

Greece has an area a little larger than Ireland. It is a mountainous country, with a very irregular coast-line and *no navigable rivers. Only a small part of the country is suitable for agriculture, wheat and barley being the chief grain crops. Vineyards are very extensive, the most important product being the small grape which, when dried, forms the currants of commerce. Olives and honey are also produced for export, and a little cotton and silk.*

The chief towns are Athens, the capital, Patras, and Syra or Hermopolis, the second town of importance in the kingdom.

LESSON LII.

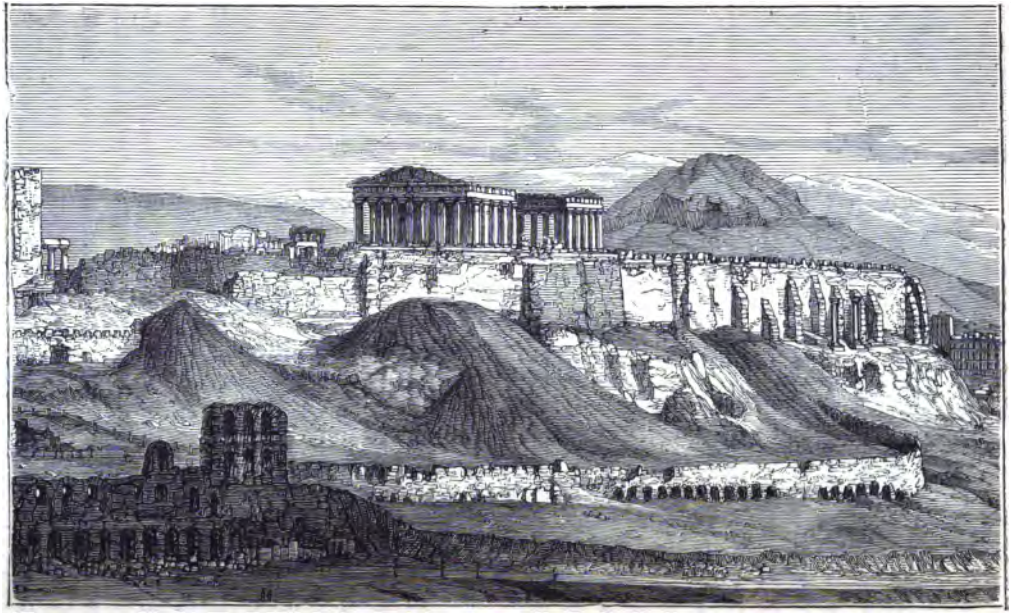
GREECE.—PEOPLE AND HISTORY.

BRED as hardy sailors, the Greeks who at first built ships and sailed abroad for plunder, afterwards engaged in peaceful commerce, built towns to live in, and grew wealthy. A taste for comfort and luxury arose. Architecture and sculpture, pottery and metal work, reached a perfection never since excelled. They devoted themselves also to study and thought. Their language attained a richness, power, and beauty unequalled by any other human speech. Their poetry remains the delight and wonder of mankind, and Greek philosophy has ever since influenced both human thought and human action. These are some of the reasons why Greek is so much studied in all high schools and colleges. The source of their wealth, trade, and power was industry. Corinth produced what would correspond to Birmingham and Sheffield wares; and became so wealthy and grand, that its name has come down to us as indicative of lavish luxury. Thus there was a proverb in old times, "It is not every one' luck to go to Corinth," meaning, we cannot all live in wealth and splendour. Athens was the centre of manufactures which we now find divided between Leeds, Staffordshire, and London, such as woollen cloths, dyes, pottery, gold and silver work, and ships.

The merchants had factories along the Black Sea and Mediterranean. Trade, art, and science were closely connected. Socrates was a carver; Aristotle, the son of a physician; Plato and Solon, of the trading class. Philosophers and artisans spoke the same language; and an intimate relation existed between industry and intelligence. But the institution of slavery enfeebled the Greek republics, made free industry sink in estimation, trade to languish, thrift and zeal to give way to profusion. These brave and polished Greeks, when their lives and wants were simple, fearlessly met the hordes of warriors led by the Persian Xerxes. Three hundred soldiers at the Pass of Thermopylæ stopped an army reckoned by hundreds of thousands, and perished gloriously on heaps of their slaughtered foes. But they prepared themselves for submission by strifes and sensual indulgence, before they were overrun by the legions of Rome, and learnt to wear a foreign yoke.

The kingly form of government prevailed in the heroic age of three thousand years ago. Prior to the great Persian invasion, nearly five hundred years before the Christian era, kings had been rejected, and republican forms of government had been established. Almost every city formed an independent State, with but a few miles of territory to each. Wars between these States were frequent; but the people were all united to fight against the Persian hordes, and defeated them in many great battles. About 146 B.C., however, the Romans conquered the country and held it as a part of their empire. Still, as a Roman province, Greece retained supremacy in art, and also a very large trade. All the choicest productions of the known world were attracted to her shores; and, in return, the beautiful creations of the looms, forges, and chisels of Athens went forth to ennoble and refine mankind.

Licenses to trade were first issued in Athens. Debtors were sold and kept in bondage till they had earned enough to redeem themselves. According to some accounts, Plato himself (one of their great philosophers), unless his friends had come to his aid, would thus have been enslaved. Severe as such laws seem, let us not forget that our own laws not long since punished the simplest theft with death, and imprisoned debtors, without giving them the chance of ever freeing themselves by their labour. Consuls at mercantile ports were first appointed from Corinth; which city chose from its merchants those who best knew the character of the people with whom they dealt abroad, to settle on the spot



THE ACROPOLIS, ATHENS.

all trade disputes or misunderstandings. Greece played a small and passive part during the Dark and Middle Ages. It was invaded by Alaric the Goth, plundered by the Normans of Sicily, conquered by the Latins, held by the Venetians; finally, in 1540, subjected to Turkish rule, and for one hundred and fifty years the noble race seemed lost to its heroic traditions.

Some leaders of thought of the ancient type were always left, who cherished ideas of independence, and struggled to break off the yoke. With the aid of Russia, insurrections were attempted and suppressed between 1770 and 1803. Meanwhile the States of Europe, whose reading and culture were bound up in the classic literature of Greece, could not but be deeply moved at the course of events. A war of independence again broke out in 1821, lasting till 1828. Then a treaty was signed by Great Britain, Russia, and France, on behalf of Greece, and the Turks surrendered their dominion; but not before their fleet had been destroyed by the combined squadrons at Navarino, on the south-west coast of the Morea. The sympathy of the Powers had been roused by a horrible massacre of the Greeks at Scio, when the slaughter lasted ten days, forty thousand victims falling by the sword, and thirty thousand young women and boys were spared only for the slave markets.

Prince Leopold, afterwards King of Belgium, was offered the crown of Greece, but declined the dignity, which was afterwards accepted by Otho of Bavaria, whose reign lasted, subject to many political perplexities, from 1832 to 1861, when he retired again to Bavaria. During two turbulent years there was no king. A prince of the house of Denmark now rules as a constitutional monarch, under the title of George I.

Greece is still backward and disorganized, but, as it has been said, "can afford to wait." The delay of the Turks in settling the frontiers has kept the State unsettled, and imposed a heavy military expenditure. The population approaches a million and a half of the descendants of the ancient race, with a mixture of Albanians and Sclavonic tribes.

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sculp'-ture
su-prem'-a-cy
debt'-ors
mas'-sa-cre
in-dic'-at-ive
a-poth'-e-ca-ry
per-plex'-i-ties
ex-pend'-i-ture
en-feeb'-led
in-dul'-gence
wor'-ship-ped
tur'-bul-ent

The ancient Greeks began with fighting, prospered by industry, and applied their wealth and leisure to the cultivation of art and letters.

Their writings are regarded as models for all after times.

Their architecture and sculpture came nearer perfection than any other human works.

Their descendants were subjected to the Romans, and afterwards to the Turks. But now they are independent again.

TURKEY.

LESSON LIII.

PHYSICAL FEATURES.—PRODUCE.—RACE.

THE Empire of Turkey stretches over the south-west of Asia, as well as the south-east of Europe. It is only the latter part with which we have to do here.

Turkey in Europe has been reduced by the results of war and treaty to about one-half of its former size and population. Its geographical character of course remains. Before the war between Russia and Turkey (1877—78) the Empire of Turkey embraced an area of 138,000 square miles. After the war it was curtailed to about 62,000 square miles, with regal rights, in name rather than in reality, over several of the former provinces; whilst the population, which was 8,000,000, is now only 4,275,000.

Its position is between the Adriatic Sea and the Black Sea, with a coast-line very indented and irregular, causing the country to assume the form of a number of little peninsulas. The whole territory, together with Greece, forms the third great peninsula of Southern Europe. The surface of Turkey, including the semi-independent provinces, presents many diversities, consisting of a series of mountain ranges, table-lands, and elevated valleys. The Balkans, which run through the middle of the country, are connected with the Carpathians on the north, and with the Alps on the west. Rivers are numerous, of which the Danube and its tributaries are the chief.

The climate of Turkey is colder than the latitude would account for, being influenced by its elevations and the prevalence of cold winds. The temperature, too, is capricious. Even at Constantinople a difference of 30° has been observed within an hour, through sudden changes of the wind from west to north. Seasonal changes are just as excessive, the mercury in some districts falling below zero, and the snow remaining a long time unmelted during the winter; whilst the summers are very hot.

Soil and vegetation differ according to the elevation; but, generally, the soil is fertile, though there are swamps along the Danube. The vegetable produce is divided by the Balkans into two distinct zones, both of them rich and varied. Yet, from many causes, little progress has been made in agriculture. In the basin of the Danube the chief timber trees are the ash and the lime; and there are forests of pine, beech, oak, with the apple, pear, cherry, and hardy fruits, and large forests of pine and fir in the north-west. The vegetable products of the south are allied to those of Italy.

Spring is welcomed with a profusion of hyacinths and roses, from which exquisite perfumes and essences are distilled; and the fruits, grain, and forest products rival the fertile growths of Sicily. The cultivated products are maize, rice, rye, barley, millet, and cotton. In Albania (bordering the Adriatic Sea), the olive, orange, citron, vine, peach, apricot, and plum flourish, with the palm, maple, and the oriental plane or sycamore.

Turkish horses, which are reared in large numbers, are strong and shapely, the mountain kind being most valued. Sheep and cattle fatten upon the rich pastures of the Danube, and in Macedonia the buffalo also is common. In the mountains the goat takes the place of the sheep. The bear, wolf, wild boar, jackal, deer, and most of the other wild animals of Europe abound. The rivers and neighbouring sea teem with fish. Bee and silkworm culture is pursued for the valued produce in honey, wax, and silk. There are productive iron mines in Bosnia, and in various places silver-bearing lead is found; also copper, salt, sulphur, alum, and coal. Gold and silver are also obtained. The gipsies of Wallachia (in the north) search for and find many little pellets of the royal metal in their river beds. Many valuable mines are known to exist, but few are worked; and, as a whole, Turkey cannot be regarded as well supplied with metals or any other useful minerals.

The population is very mixed, and their number—as no census is taken—is but a conjecture.

The dominant race, called by various names, as Turks, Osmanlis, Othmans or Ottomans, were, in the first instance, a tribe of Tartars, who gained possession of Armenia, and by degrees extended their power to Europe. They captured Constantinople in 1451, and so put an end to the last vestige of the Roman Empire. They are far from being the most numerous race. The Sclavonic tribes of the north-west provinces much exceed them in number. More Jews live in Turkey than in any other part of Europe. Greeks and Armenians, with the Jews, share the internal trade.

The languages spoken are as mixed as are the races; the Greeks using their own tongue, the Wallachians a corrupt form of Latin, the Albanians a peculiar dialect of their own, while Turkish and Arabic are much affected by those who pride themselves upon their birth and station.

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di-vers'-i-ties
in'-flu-enc-ed
prĕ'-val-ence
ca-pric'-i-ous
hy'-a-cinths
ex'-quis-ite

Turkey proper has an area about as large as England and Wales. The Balkan Peninsula, of which it forms a part, has a surface diversified by mountains, table-lands, and valleys. The Balkan range of mountains extends through the peninsula from east to west. It is joined by the Carpathians on the north and the Alps on the west; and spurs run southward, ending only at Cape Matapan in Greece. The Danube, with its numerous tributaries, is the only important river. The soil is fertile, but agriculture is back-

ward. The chief productions are timber trees, corn, fruit, and cotton.

The Turks are Asiatic invaders, who took Constantinople a little more than 400 *years ago.*

LESSON LIV.

TURKEY.—INDUSTRY AND COMMERCE.

TURKEY affords an example, like Spain and Portugal, of the manner in which the character of a people affects their well-being. Endowed with every material blessing—skies, seas, soil, and resources—at the centre of trade and of civilisation when Europe was wrapped in the gloom of the Dark Ages—the Turks, by their indolent pride, disdain, and reserve, gradually lost their trade and commerce. They allowed nature, which had been subdued by the active Greeks, during the period of the Byzantine or Eastern Roman Empire, to wrest again the dominion from man, and to turn the fertile realms of industry, from the Levant to India, into a desert region.

From the capture of Constantinople in 1451 until the Crimean War (1854), Turkish commerce was insignificant, and domestic industry in a deplorable state. Its manufactures were confined to a few works in woollen, cotton, leather, and fire-arms. The existence of mountain ranges separating one province from another and rendering intercourse difficult, with bad government and the worst of roads, made progress out of the question. Till quite lately there were neither canals nor railways. For four hundred years the Turks closed the Black Sea to the visits of merchants, and they added obstacles of their own, worse than the shallows and rocks, to the navigation of the Danube. Even now the exports are nearly all raw materials, the gift of nature, little being due to patient or skilful industry; and the amount is small from so large an empire. Every department of labour is in the lowest condition. Husbandry has not improved from the system of the earliest tillers of the soil. Machine-made goods from England give no chance to native fabrics.

There is no real security for life and property. Pashas (viceroys, who rule districts), kept by fear of the bowstring from offending their Sultan, have no check upon their greed and tyranny in the provinces, where might is the chief law, and bribery its payment. Under such circumstances industry cannot thrive; for no one who is liable to be robbed of the fruits of his labour can work with zeal. Free trade—for the Turks have scarcely any industries to protect—has alone kept any life in the commerce. France had a trifling trade with Turkey before the Revolution of 1792, but it passed to England, with the fortune of war, and has not been recovered.

Since the Crimean War, the Danube and the

Bosphorus have been open to navigation during the day, and of late years during the night also. The Bosphorus is a most important strait, leading from the Black Sea to the Sea of Marmora, and dividing the capital of Turkey in Europe from that part of Turkey which is in Asia. Austria has undertaken to clear the river Danube of its shoals and rocks, and a railway is completed to Constantinople. Great increase of traffic has followed, in the profits of which every town on the line of route partakes. British trade alone is threefold what it was in 1856. Treaties of commerce have been entered into with England, France, Sweden, Spain, and other States, which have stimulated industry and trade, and the promise given in a yet distant future of abounding national wealth.

The capital of Turkey is Constantinople. It was the wonderfully advantageous position of this city which led the Emperor Constantine in the fourth century to make it the capital of the Roman Empire. Its earlier name was Byzantium, but Constantine named it after himself, "the city of Constantine."

Its site ought to render it the centre of the trade of the richest parts of the globe. Commanding the sole outlet from the Euxine (or Black Sea), Constantinople sees the commerce of Europe, Asia, and Africa pass under its walls. The Danube wafts to its quays the produce of Germany ; the Volga, the riches of the Ukraine.

CONSTANTINOPLE.

The Mediterranean opens to Constantinople the commerce of its many-peopled shores; the more distant wares of England and America find an inlet through Gibraltar Straits; and overland, camels bring the treasures of India and Asia to the opposite shore of the Bosphorus. The flag of England, the tricolour of France, the eagles of Russia, the rising star of America, the aged ensigns of Europe, with the infant sails of Australia, the pendants of all the nations of the world are seen, side by side, in the spacious harbour called the Golden Horn.

When Constantine made the city the capital of the Roman Empire, he lavished money in the effort to make it equal the glories of Rome; but its natural grandeur could not be improved by art. The Bosphorus is a deep tideless water, and its harbour fitted for ships of every size. Gibbon, the historian, says that when the gates of the Bosphorus and the Hellespont* are shut, the capital still enjoys every production to supply the wants or gratify the luxury of man. The coasts of Thrace and Bithynia, which languish under the weight of Turkish oppression, still exhibit a prospect of vineyards, gardens, and glowing harvests, and the Propontis † has ever been renowned for stores of exquisite fish, taken in their season without skill and almost without labour. But now the straits are thrown open, the corn of Egypt, the gems and spices of India, are brought by the varying winds to the port; the skill of Europe and Asia is taxed for both natural and artificial riches, and Constantinople attracts the merchandise of the whole earth.

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* A narrow passage or strait opening into the Ægean Sea, and dividing it from the Sea of Marmora.

† Sea of Marmora.

Constantinople, safe from the hordes which had destroyed Rome and darkened the face of Europe, retained many of the traditions of the ancient seat of empire. It bridged over the interval between the old and the new civilisations; it kept up a commercial intercourse with the East, and mainly effected the restoration of art, science, and literature. When taken by the Crusaders and Venetians, it was, according to Hallam, "decked with the wealth of ages, and resplendent with the monuments of Roman empire and Grecian art." After a thousand years of power it fell into the hands of the Turks, and it is now awaiting its awakening from centuries of lethargy, to start once more to life, and recover its old renown.

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de-plor'-a-ble
re-splend'-ent
ex-ist'-ence
lĕ'-thar-gy
vice'-roys
ty'-ran-ny

With great natural resources the industries of Turkey are not thriving, and but little more land is cultivated than is necessary to supply food for the people themselves. There are scarcely any manufactures. Silk and wool are woven, the former especially in Constantinople and Salonica, and Turkey carpets are famous.

The chief exports are corn, goat's hair, opium, and fruits.

Constantinople, the capital, Salonica, and Adrianople are the chief towns.

The first Christian Emperor, Constantine, in the fourth century removed his capital to Byzantium because of its splendid position, and called it Constantinople, "the city of Constantine."

LESSON LV.

TURKEY.—POLITICAL FACTS.

BEFORE the war between Russia and Turkey (1877-8) the Turkish Empire comprised nine provinces—Roumelia, corresponding to the ancient States of Macedonia and Thrace, in which Constantinople is situated; Thessaly, of which Larissa is the capital; Albania; Bulgaria; Herzegovina; Bosnia, including Croatia; Montenegro, or the Black Mountain, named from its dark forests of pine; Servia, of which Belgrade is the capital; Roumania, uniting the earlier provinces of Wallachia and Moldavia, whose capitals were respectively Bucharest and Jassy.

A careful study of a recent map is needed to trace the result upon the Turkish Empire of the provisions of the Treaty of Berlin, made by the Great Powers of Europe in July, 1878. The general effect is that the empire was shorn of its fairest provinces, more than one-half of its territory, and has been compelled to rectify, by a further cession, the northern frontier of Greece.

1. Roumania, the most northern province (bounded by the Carpathian Mountains and by Russia), and whose whole southern frontier is the Danube, was previously a tributary State, but is now a separate kingdom, on the conditions of civil, religious, and political freedom to all its citizens. Servia and Montenegro, which were also tributary States, are now to be ruled by their own hereditary princes. Exchanges and additions of territory were, at the same time, made to the advantage of these three States. Roumania gave back the part of Bessarabia ceded by Russia in 1856, and retired to her old boundary of the river Pruth and the most northern mouth of the Danube. She received instead the islands at the mouth of the Danube, and a strip of land between the south-eastern frontier and the banks of that river. Servia is enlarged towards the south-east by territory taken from Bulgaria. Montenegro not only has its area doubled, by accessions both to the north and south, but, for the first time in its history, through the port of Antevari, gets communication with the sea. It also obtains the navigation of the border lake of Scutari, providing a farther opening to the Adriatic.

2. Bosnia and Herzegovina are placed under Austrian rule, and, though some special conditions have to be complied with, they may be regarded now as practically a part of that empire. Turkey reserves only the district of Novi Bazar, lying between Servia and Montenegro.

3. The new principality of Bulgaria is well defined by the Danube dividing it from Roumania, the Balkans dividing it from Roumelia, the Black Sea to the east, and Servia to the west. This State is to be tributary to the Sultan, and to take over a portion of the Turkish debt, but beyond these conditions is free from Turkish control.

4. Eastern Roumelia is bounded on the north by Bulgaria, on the east by the Black Sea, while, on the south and west, the boundaries are 41° 30′ north latitude, and 23° 30′ east longitude. This State is to enjoy *autonomy*, or self-government; but the Sultan retains the regulation of political and military affairs, the appointment of the officers of the militia, the manning of the frontier fortresses, and the passage through the country of his troops, which, however, are not to remain or to be billeted upon the people.

5. Since these arrangements were decided upon Turkey has, for an annual payment, granted to England the right of occupying Cyprus; but the island does not become English territory.

Thus the provinces left to the Sultan are only in the south and west—part of Roumelia, with Albania and Thessaly, and of these last two a strip is conceded to Greece. The Turks have not received so much sympathy in their losses as they would have had if their conduct had been different. Their rule has been a deadly blight, now reaching its fifth century, falling upon the ancient trade routes, and placing a barrier between Europe and Central Asia. Without the stimulus of trade, vast tracts of once smiling fertility remain for ages barren, while a dogged fatalism and dense ignorance degrade both rulers and people. Famines occur in a soil that should teem with food, and English fabrics clothe a race which could provide cotton, silk, and wool for a large part of the whole world. All that is required to restore the ancient prosperity is just, firm, tolerant, and enlightened government. Oppression can never reconcile different races to the domination of a few, and the history of Turkish rule has been that of a chronic state of revolt of its various provinces, which has been repressed without mercy and without reform. Not such was that ancient Roman rule, which attached conquered tribes by the benefits conferred, then afterwards made them Roman citizens, and taught them to be proud of the name.

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mi-lit'-i-a
chron'-ic
au-to'-nom-y
en-light'-en-ed
fer-til'-i-ty
fron'-ti-er

Of the nine provinces which, previous to the war of 1877-78, *comprised the Turkish Empire, Roumania, Servia, and Montenegro are now independent, Bosnia and Herzegovina are subject to Austria, whilst Bulgaria and Eastern Roumelia are only subject to Turkey in name. Part of Roumelia, Albania, and Thessaly are the only provinces now under the direct rule of the Sultan.*

APPENDIX.

LESSON I.

LATITUDE AND LONGITUDE.

You have learned in a former lesson that the shape of the earth is that of a globe or sphere. But the earth, although it is a globe, is not quite a sphere. It is a little flattened at the poles; in other words the diameter at the equator is a little longer than the polar diameter. This figure, which may be said to be a flattened sphere, is called a *spheroid.* The earth's circumference measures nearly 25,000 miles.

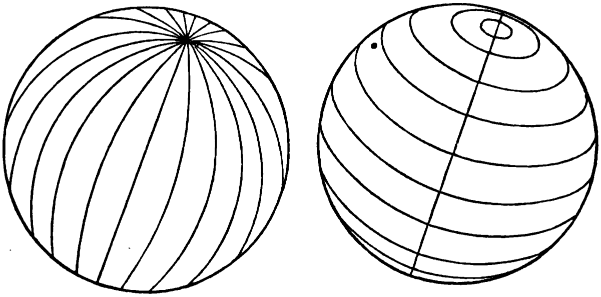
The form of the earth may be represented by a globe. But how can we tell on what part of such a globe to mark England, for instance, or New Zealand? We fix the position of places by means of imaginary lines drawn round the earth. These are shown by real lines on our school maps and globes.

A line drawn round the thickest part of the earth midway between the poles is called the *equator*. And it is so called because it divides the globe into two equal portions—the northern and the southern *hemispheres*. Knowing where the equator is, we can easily measure distances from any given point directly north or south towards the poles. The distance of a place north or south from the equator is called *latitude*, or *breadth*.

To get the exact distance in miles it is customary in this country to divide the *great* circle—that is, the line passing round the earth through the poles—into three hundred and sixty equal parts, and to call these parts *degrees*. Hence the line from the equator to either pole—that is, a fourth part of the circle—will measure ninety degrees. Now, as the whole circumference of the earth is 25,000 miles, it follows that one degree measures about 69½ miles.

To assist us in marking the latitude of places we conceive lines to be drawn parallel to the equator and at equal intervals between it and the poles. These circles, which get smaller and smaller as we approach the poles, are called *parallels of latitude*. The degrees of latitude north of the equator are degrees of *north* latitude, those to the south are degrees of *south* latitude.

It is not sufficient for us to determine the distance of a place north or south from the equator. We want further to fix its position along its parallel of latitude. This is done by conceiving lines to be drawn from pole to pole, cutting the equator at right angles. These are lines of *longitude*, or *length.*



These lines are called *meridians,*[*] because every point along any one line from the North Pole to the South Pole has its mid-day at the same moment; and, of course, on the opposite half of the complete circle midnight happens at the same moment also.

The equator is a definite line from which distances are measured north and south; there is no similar fixed line of longitude from which distances east and west may be measured. The great nations of the world have usually selected the meridian of their capital—as in the case of France and the United States of America, or of some well-known observatory, as in the case of Greenwich in England—and they have made this the line from which to measure the longitude east and west round the world.

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[*] Meridies, mid-day.

It must be observed that we measure latitude along the meridian lines, and that the meridians being all of equal length, the degrees of latitude are all of equal length, viz., about 69½ miles. This is not the case with the degrees of longitude. The equator is of about the same length as the meridians, and a degree of longitude at the equator, therefore, measures the same as a degree of latitude. But as we go further from the equator the " parallels of latitude " get smaller and smaller, until at the poles they disappear altogether. Now, as we have to measure from one of the meridians east or west on these gradually decreasing circles of latitude, and as we still divide the circle into three hundred and sixty parts or degrees, the degrees of longitude measure less and less as we go from the equator towards the poles.

In measuring for longitude, then, we number the meridian which passes through Greenwich as 0. If we measure from this meridian eastward, say fifty degrees (50°), this spot is said to be in fifty degrees *east* longitude (50° E.). On the other hand, if we measure fifty degrees to the west of the fixed line the spot is said to be in fifty degrees *west* longitude (50° W.). In determining the latitude of a place we measure from the equator, and indicate whether *north* or *south* latitude is meant.

The two sets of lines—the *meridians* and the *parallels* of latitude—drawn on a globe form a kind of framework, by which the position of every place on the earth can be shown. These lines are also drawn on every good map, and the reason is that they enable us at once to assign to any place its position on the globe.

Every one who has understood this lesson will now be able to tell how we should fix the position of England or New Zealand on a globe. We must first draw lines of latitude and longitude; and then we should mark England and New Zealand on those lines which represent their real latitude and longitude.

spher-oid' **lat'-i-tude** **par'-al-lel**
e-qua'-tor **long'-i-tude** **mer-i'-di-an**

LESSON II.

THE DIURNAL MOTION OF THE EARTH—DAY AND NIGHT.

When we look at the sky above and around us we see what appears to be the concave, or inner surface of a huge hollow sphere, in the centre of which we are placed. At night the surface of this vast vault appears to be studded with stars, "like jewels set in a crystal sphere," all fixed at definite distances from each other.

If we watch for a time the position of the heavenly bodies in regard to a tree, or a house, we shall discover that they appear to move slowly but surely in a westward direction. It seems, indeed, as though the whole vault above us, with its embedded stars, turned slowly round from east to west, making one revolution in about twenty-four hours.

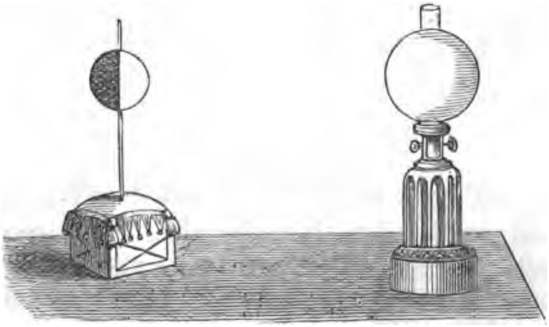
But this is only an *apparent* motion. The *real* motion is the revolution of the earth itself in an opposite direction, viz., from west to east. That this is really so may be shown in several ways. It will, however, be enough for our purpose now if we can satisfy ourselves that an *apparent* motion of one object may be brought about by the *real* motion of another in an opposite direction. If that is so, then the apparent rising of the heavenly bodies in the east, their journey through the sky, and their setting below the horizon in the west, may be explained by a real motion of the ground beneath us. If the ground on which we stand moves from west to east, then the sky above will seem to move from east to west.

Looking out of the window of a railway train in swift motion we notice that the trees and hedgerows appear to fly past us. The real motion of the train in one direction produces an apparent motion of the trees and other objects in a contrary direction.

The delusion is more perfect when we sit in the cabin of a barge sailing down a smooth stream. Until we look out of the window we are not aware of any motion; but then we see the trees and houses glide past us, or at least appear to do so; and as we know that the trees and houses are fixed, we conclude that their *apparent* motion in one direction is caused by our *real* motion in the opposite direction.

And so it is with the globe on which we live on the one hand, and the stars and the sun scattered through infinite space on the other. The latter appear to rise in the east, to travel through the arch of heaven, and to set below the horizon in the west. And all the while it is the earth which is itself revolving, not the sun and moon and stars, and it moves in an opposite direction, from west to east. We cannot feel or in any way appreciate this motion, because it is a motion of absolute evenness. It is to this diurnal, or daily motion, that the succession of day and night is due.

We may easily illustrate the diurnal motion, and the change day and night, by means of a globe placed in front of a lamp or candle. Day will be represented on that half of the globe on



which the light rays fall, and night will be illustrated on the half which is in darkness.

Now turn the globe slowly from west to east, and you may see for yourselves how we first get a glimpse of the sun in the east; and then, as the earth turns, how it is that the sun seems to get higher in the heavens until it reaches a point nearly overhead, and then slowly sinks below the horizon in the west.

By following one of the parallels of latitude on this same globe, you may further see that every separate point on the earth's surface in the same latitude has mid-day at a different time—or has a different meridian—and that all times of day and night may be found at any moment in different parts of the world. One place may be just emerging from the darkness into sunlight, another, distant 180° eastward, will be just bidding adieu to the day, whilst a point midway between these will be experiencing the effects of the mid-day sun. Thus, while it is early morning in London it is mid-day at Calcutta, evening in New Zealand, and midnight in the centre of North America.

hor-iz′-on **di-ur′-nal**

LESSON III.

THE ANNUAL MOTION OF THE EARTH.

THE earth's diurnal motion does not account for all the apparent movements of the heavenly bodies. If you watch the sun's path across the heavens in midwinter you will see that it forms a low flat arch; but that day after day the arch gets a little higher and higher, till at midsummer it is almost overhead. From this time it gets lower and lower, till again it reaches its lowest point at midwinter. This apparent journey from the lowest arch to the highest, and back again to the lowest, has taken one year to accomplish. This journey is, in fact, the measure of a year. At first sight it appears as though the earth were standing still, and the sun moving through the heavens. In reality the appearance is caused by another motion of the earth. This motion is its journey round the sun, and it occupies the period of time we call a year.

Again, if we watch the stars for some nights in succession we find that they gradually change their positions: in fact, there is a complete change of the visible stars from midsummer to midwinter: but at the end of a year the same stars are visible again and in the same places. These apparent changes are also brought about by the earth's motion in space round the sun.

The earth, then, has two motions—the one on its own axis, occupying twenty-four hours, and the other round the sun, occupying a year. The wheels of a carriage in motion illustrate very well these motions of the earth. The wheels turn round and round on the axle, and at the same time go forward along the road. When the coachman cleans a carriage wheel, he raises it from the ground and spins it round and round whilst he throws water on it. This illustrates one motion: it turns on its axle, but does not move from the spot. When going down a steep hill the wheel is sometimes fastened with a chain, so that it slides down the road without turning round; this is the forward motion. But mostly we see the wheel moving forward and turning round on its axle at the same time.

Send a cricket ball along the road and you will see the same thing; throw it in the air and it will turn on its axis and go forward too. This is just what the earth does. If we were to lay a cart-wheel on the ground and place a lamp in the middle to represent the sun, and then roll a ball round the rim of the wheel so as to travel round the lamp, that ball would be like the earth moving round the sun.

The two motions of the earth may also be very beautifully illustrated by sinking a ball up to its middle in the centre of a tub of water to represent the sun, and using an orange (through which a knitting-needle has been passed) sunk in the same way to represent the earth. The orange may be made to turn on its axis from left to right, and at the same time to describe a circle round the larger ball. The circle described represents the earth's path, or *orbit*,* in space, and the surface of the water represents the *plane*, or level, in which the earth moves. This plane is called the *plane of the ecliptic.*

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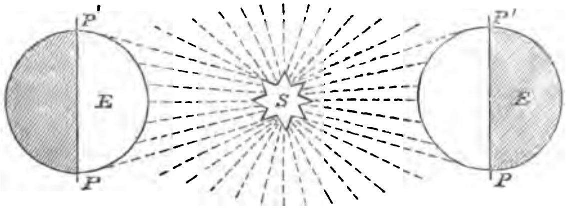
* The orbit is not quite a circle. It forms an ellipse, the sun occupying one of the foci.

In this illustration the knitting-needle represents the axis of the earth, and as it is in an upright position, the line round the orange formed by the surface of the water represents the equator. Hence the plane of the ecliptic and the plane of the equator are here represented to be one and the same.

Now let us take a lamp to stand for the sun, and a large ball or globe to represent the earth, as in the figure before us.



The globe is set on the same level with the light, so that its brightest part is round its equator. Any one can see that so long as the axis of the globe is upright, the middle part half-way between the Poles must always get most light and heat, and that the Poles will always be equally in shadow. You may carry the globe round the light as you will and turn it on its axis at your pleasure, but so long as it is kept at the same level and the axis stands upright the light and heat will always fall equally on the same belt round the middle, and the Poles (P P′) will get very little.

If this correctly represented the position of the earth and sun and the movements of the former, we should have day and night everywhere of equal length, the sun would be always overhead at the equator, and every spot upon the globe would have its own unchangeable climate. "At the equator itself an intolerable heat would prevail, in the temperate latitudes a cold and cheerless spring, and in the polar regions eternal icy desolation." But the days, as we know, are not all of the same length, neither is the sun always overhead at the equator.

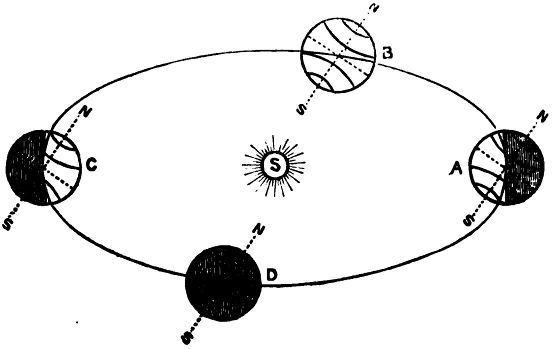
It will be shown in the next lesson that we can explain all the facts connected with the varying lengths of day and night in different parts of the world, the apparent journey of the sun north and south of the equator, and the formation of the seasons, by assuming that the earth's axis is inclined to the plane of the ecliptic.

ax′-is
orb′-it
ec-lip′-tic
plane

LESSON IV.

DURATION OF DAY AND NIGHT.—THE SEASONS.—THE ZONES OF CLIMATE.

THE real position of the earth's axis is not upright: it is slanting. If this be kept in mind, we can illustrate, by means of the school globe or by diagrams, the proportions of day and night at different places and at different times of the year, together with the succession of the seasons.



First let us try a diagram. Here it is. The sun is in the centre, and the line represents the *orbit*. At A you see that the part round the north pole must be *always* in the shade, whilst the part round the south pole is *always* in the light. So that, although the earth still turns on its axis, there is always night round the north pole, and always day round the south pole.

As the earth travels towards B, the part round the north pole gradually comes into the light, whilst the part around the south pole gradually loses it, until at B the light and the shade reach just *as far as* the poles.

At C the north pole has the light, and the south pole the darkness—just the opposite to what we saw at A. At D the light and darkness are similar to what we saw at B.

Our country is situated between the north pole and the equator. When the globe stands as it does at B, the earth turning round on its axis places us in the light for about twelve hours, and in the dark for twelve hours. Then it is our spring season. When the globe reaches the place marked C, our part of the earth is in the light more than twelve hours, and in the dark less than twelve hours; then it is the summer season, for we have long days and short nights. We next—three months later on—come to the place which we have marked D; and as the earth turns on its axis, it keeps on the light side half the way round and the dark the other half. This is our autumn, and the day and night are again equal. Then when the globe rolls in its orbit to the place we have marked A, you see that our part of the world as it turns round is longer in the dark than in the light; and that is our dark winter season.

Thus the seasons are caused by the slanting position of the earth's axis as it rolls round the sun.

At one part of the earth's orbit the sun shines more on the northern part of the world, at another more on the southern part of the world.

Next let us try an experiment. Set the light of the lamp exactly opposite to the equator of the globe. Incline the axis of the globe about 23½° from the perpendicular, and away from the light. This position represents midsummer in the southern hemisphere, and midwinter in the northern. Fix a little bit of paper on the globe within 23½° of the North Pole: on turning the globe on its axis, it will be seen that the paper never comes into the light. Hence, at midwinter there is no daylight at all within the Arctic circle. On the other hand, there will be no night within the Antarctic circle.

In the same way it can be shown that at the equator the day and night are equal; that in the northern hemisphere the nights are longer than the days; and that the difference increases as we travel from the equator towards the pole, until, as we have seen, the day vanishes entirely, and night has no end. On the other hand, as we proceed from the equator towards the South Pole the days lengthen and the nights shorten, until within the Antarctic circle the sun is seen above the horizon for twenty-four hours.

Let the globe be now carried a little way round the lamp, taking care to keep the axis in the same position, and we shall have no difficulty in seeing that the days and nights are getting more nearly equal in length in both hemispheres, and that the sun is approaching nearer to the zenith of the equator. When we have completed one-fourth of the circuit round the lamp, we shall see that the sun is quite overhead at the equator, and that the day and night are equal in length all over the world. This position is attained on March 22nd, and is called the spring *equinox*.

As we carry the globe onward from this point in its circular tour, we can show how the days and nights gradually get more unequal in length—the days lengthen in the northern hemisphere, and shorten in the southern—until we arrive at a point opposite to that whence we started, when we have midsummer in the northern hemisphere and mid-winter in the southern. And now we shall see that there is no night within the Arctic circle, and no daylight within the Antarctic.

Continuing the journey through the third quadrant of the circle, the duration of day and night is again shown to be slowly approaching equality, until on September 22nd, at the autumnal equinox, they are again of equal length.

During the fourth quarter of the year the duration of day and night again becomes more unequal until the earth has completed its journey, and things are just as they were when we started.

It should be noted that at midwinter the sun is overhead at a distance of 23½° south of the equator; that, apparently, it journeys northwards, and is overhead at the equator on March 22nd. On Midsummer Day the sun is overhead in Lat. 23½ N. It then appears to turn and take a similar course back again. Imaginary lines drawn round the earth north and south of and parallel to the equator, where the sun appears to turn, are called *Tropics.*[*] The line 23½° north of the equator is the *Tropic of Cancer;* the line 23½° south of the equator, the *Tropic of Capricorn.* They are so called from the constellations that mark those parts of the heavens. The broad belt of land round the centre of the earth enclosed by these lines is sometimes known as the *Torrid Zone,* and sometimes as the *Tropics* (because it is between the Tropics). The equator divides the Torrid Zone into two equal belts.

The broad belts of land in both north and south hemispheres between the Tropics and the Arctic and Antarctic circles are called the *Temperate Zones.* The land round the poles enclosed by the Arctic and Antarctic circles are the *Frigid Zones.*

The temperature of a place manifestly depends on the length of day and the angle at which the sun's rays strike the earth; and it will be readily understood from the practical illustration here described how the succession of seasons in both the northern and southern hemispheres is brought about, and how the summer in the northern hemisphere corresponds to the winter in the southern hemisphere.

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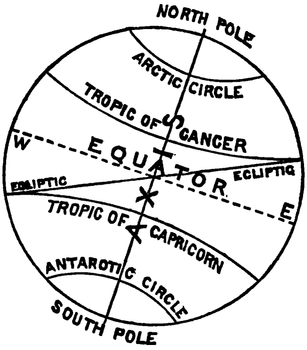
[*] The word *tropic* means a turning point or place.

arc′-tic
e′-qui-nox
ant-arc′-tic
trop′-ic



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